



THE NORTH CENTRAL ASSOCIATION QUARTERLY

*The Official Organ of the North Central Association of Colleges
and Secondary Schools*

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Volume XXII

APRIL 1948

Number 4

ASSOCIATION NOTES AND EDITORIAL COMMENTS

COORDINATING ACTIVITIES OF THE ASSOCIATION

TO THOSE who have been attending meetings of the North Central Association over a period of years, the outstanding feature of this organization has been the extensive and important work carried on by the three commissions which comprise the working units of the Association. While the general sessions at the time of the annual meeting are important and have included outstanding addresses and pronouncements on issues of significance to American education, it is at the meetings of the three commissions that the major activities of the Association are carried on. It is also primarily through the Commission meetings that member schools find an opportunity to participate in Association deliberations and determine policy. To many, this would seem to be the chief characteristic which differentiates the North Central Association from other professional groups.

The development of these commissions has an interesting history. As Professor Davis points out in his *History of the North Central Association*, a Commission on Accredited Schools was organized in 1901. For some years this worked through two sub-committees, one on Unit Courses of Study and one on High School Inspection. In 1906 the Association undertook the accrediting

of colleges and the Committee on High School Inspection now took the name of Commission on Accredited Schools and Colleges. With the revision of the constitution in 1916 three coordinate commissions were set up. Except for name, their functions and responsibilities are essentially those which characterize them today. The three commissions were the commission on Institutions of Higher Education, the Commission on Secondary Schools, and the Commission on Unit Courses and Curricula. In the revision of the constitution of 1942 the Commission on Higher Education became the Commission on Colleges and Universities; the Commission on Unit Courses and Curricula became the Commission on Research and Service, with a somewhat clearer statement of its relationship to the other commissions. These three commissions differ in internal organization and in the name of the executive body which carries on the interim work of the commission. For the Commission on Colleges and Universities the executive group is the Board of Review of seven members, for the Commission on Secondary Schools it is the Administrative Committee of seven members, for the Commission on Research and Service it is the Steering Committee of four. While the commission plan of organization has given the Association a high degree of flexibility and has con-

tributed to the efficiency of its program it is attended by certain disadvantages. The Commissions ordinarily hold their meetings simultaneously and membership is specifically non-duplicative. While the annual meeting occasionally provides for joint meetings of two commissions with attention to problems of mutual concern, these three bodies have been largely independent of each other and even unaware of problems and activities of the other commissions. To some, it has appeared that the Association was even in danger of becoming merely a loosely knit organization of three autonomous commissions.

With these considerations in mind Chairman Boardman of the Commission on Secondary Schools extended to Chairman Fellows of the Commission on Research and Service an invitation for a joint meeting of the executive bodies of these two commissions in the spring of 1947. It was not possible to hold this conference at the meeting in March, but arrangements were made for the two groups to meet in conjunction with the Executive Committee at a later date. The Steering Committee of the Commission on Research and Service and the Administrative Committee of the Commission on Secondary Schools met for dinner on June 26 and continued an informal session throughout the evening. There were no agenda for this meeting, no specific program was planned, and no official actions were contemplated. The purpose of the meeting was solely informational and exploratory. The meeting opened with an explanation by the Chairman and Secretary of each commission of the activities carried on throughout the year. Of particular value to representatives of the Commission on Secondary Schools was the report of activities carried on by the various committees of the Commission on Research and Service and, in particular, informa-

tion about the publications of that commission which would be of special interest to secondary schools. For the Commission on Secondary Schools, the presentation covered the extensive revision of the "Policies, Regulations and Criteria" undertaken over the period of the last two years and the important role played by the state committee in the activities of the commission. I believe it is fair to say that the feeling was universal that the meeting resulted in greater understanding on the part of both groups and in laying the foundation for increasing cooperation. While no official action was taken by the conference, one tangible outcome was a proposal that the Administrative Committee of the Commission on Secondary Schools elect a Cooperating Committee to work with the appropriate committee of the Commission on Research and Service in the exploration of areas of study which would be of maximum benefit to member secondary schools.¹

Following this meeting similar plans were initiated for a joint meeting of the Board of Review of the Commission on Colleges and Universities and the Administrative Committee of the Commission on Secondary Schools. This meeting was held in Chicago on January 30 with President Emens in attendance in addition to the members of the two committees. As in the case of the earlier meeting, the first portion of the conference was given up to presentation of the activities of each of the commissions by representative officers. Various areas of mutual concern were explored, with major attention devoted to the problem of appropriate recognition and accrediting of junior colleges. It was generally recognized that

¹ Note: This committee was elected at the meeting of the Administrative Committee held on January 30 in Chicago, and announced at the business meeting of the Commission on March 11.

the development of junior colleges or "Community Institutes" as an extension of the public school system entails a responsibility which the present machinery for accrediting is not adequate to discharge effectively. The proposal was made that the Executive Committee be requested to appoint a special committee representative of both commissions to explore the whole question of junior college status and the trends in this educational unit. Another matter discussed had to do with a joint committee to explore the question of interinstitutional relationships between colleges and secondary schools with special reference to provision of transcripts for teachers and records of graduates from the secondary schools. As in the case of the earlier meeting, it was the consensus of those in attendance that the day had been profitably spent and would result in a greater understanding on the part of the two commissions of the areas in which their activities overlap. A similar joint meeting of the Board of Review of the Commission on Colleges and Universities and the Steering Committee of the Commission on Research and Service is projected for an early date.

The meetings presented here would seem to present an appropriate pattern of cooperative relationships for the commissions of the Association. The Executive Committee as a composite body representative of the three commissions and the Association as a whole acts as an administrative unit for the entire Association and serves to bring about some degree of mutual understanding and common purpose. Its meetings are, of necessity, however, taken up with many matters of routine character and formal presentations from the commissions. They do not provide scope for the type of informal exchange for which these special conferences were intended. Similar joint

meetings in the future as a regular phase of North Central activity would seem to provide the means for developing that unity of purpose which is essential to the Association as a whole, while at the same time preserving to each commission its unique and independent character.

EDGAR G. JOHNSTON, Secretary
Commission on Secondary Schools

MINNESOTA PRINCIPALS EVALUATE CONTESTS

The secondary school principal is now confronted by a new and growing problem. It is the sharp increase, during the past few years, in the number of organizations attempting to conduct essay, speech, poster, and other types of contests in the high schools. The secondary school must appear to be an easy medium through which these organizations can express their felt needs to carry on some civic project.

Each of these contests places an added and oftentimes a questionable burden upon the schools. Some of them are worthy and may be used by the schools to motivate pupils to higher levels of achievement. There are others, however, that have little or no educational value. In some cases the sponsors use the guise of contests in their attempts to use the schools for their own selfish benefits. If necessary, sponsors of this type will use all sorts of pressures to get their contests into the schools.

Most high school principals are too busy to take the time that is necessary to determine the educational benefits of a contest or the true motives of the sponsors. Furthermore, they are not always able to resist the pressures that are sometimes applied.

A few years ago, the National Association of Secondary School Principals set up a committee to evaluate such contests and to publish a list of those

it approved. The national committee has fulfilled its function very well. However, this is not enough. There are still contest problems to be solved at the state and local level. Many contests originate within the state and their sponsors do not apply to the National Contest Committee for approval. Furthermore, the contests that are approved at the national level need to be scrutinized again at the state level. State officers of organizations do not always feel obligated to conduct their contests according to the plan their national officers presented to the National Contest Committee.

The Minnesota Association of Secondary School Principals decided this problem needed immediate attention. A committee was appointed at the November meeting of the Association to study and evaluate the various contests which the principals are asked to conduct in the high schools of the state. Those appointed to the committee were Principals Robert Van Kleeck, Greenway High School, Coleraine; Arnold Woestehoff, Senior High School, Kerkhoven; and Minard W. Stout, University High School.

The first act of the State Contest Committee was to draw up four objectives:

1. To develop criteria for evaluating the contests to be conducted on a state level.
2. To evaluate those contests whose sponsors apply for committee approval.
3. To approve or withhold approval of the contest applications.
4. To furnish the members of the Minnesota Association of Secondary School Principals a list of the approved contests.

The next step of the Committee was to develop standards by which it could measure the desirability of a contest. The criteria which were eventually used state that:

1. The objective of the contest should be worthy to the extent that the educational values

to the student outweigh the direct or implied advantages of the sponsor.

2. The contest should not be used as an advertising medium by the sponsor.

3. The contest should be related to and stimulate the accepted educational program of the school.

4. The contest should not put an undue burden upon members of the staff.

5. The contest should be largely philanthropic in nature. The prizes should be adequate in amount, spread, and have real value, such as scholarships to member institutions of recognized accrediting agencies.

6. The contest should be well planned and efficiently administered. The efforts of the contestants should be carefully evaluated by competent judges.

7. The contest should not require more than one student to be selected if travel is required in attending a national or interstate contest.

8. The subject of an essay or speech should not be strictly sectarian nor should it tend to promote controversy.

9. The organization sponsoring the contest must be engaged in a worthy and generally acceptable enterprise regardless of the kind and character of prizes offered or subject of essay or contest.

10. The contest must meet the standards of Criterion 4-F of the North Central Association of Secondary Schools and Colleges. ("A secondary school should not participate in any district, state, interstate, or regional athletic, music, commercial, speech, or other contest tournament, congress, or assemblage involving the participation of more than two schools, except those approved by the State Committee, or by that organization recognized by the State Committee as constituting the highest authority for the regulation and control of such activities.")

11. There should be no strings attached to the prizes of the contest that will obligate the student or the school.

12. The sponsors of the contest should make application for approval of the contest in the matters designated by the committee by June 30 prior to the school year in which the contest is to be held.

The third problem confronting the Committee was to decide upon what information it would need about a contest in order to evaluate it in terms of the criteria. It was decided that sponsoring organizations would be required to fill in application blanks which asked for the following information:

1. The name and address of the organization sponsoring the contest.
2. The name, address, and telephone number of the manager in charge of the contest.
3. The name of the contest and its opening and closing dates.
4. A description of the significant characteristics of the contest.
5. The chief purpose of the contest.
6. How the winners would be selected.
7. The names and addresses of the judges to be used.
8. The kind and value of the prizes or awards to be given to the winning individuals and schools.
9. When such awards would be made.
10. Any conditions to which schools or students had to agree in order to participate in the contest and any obligations expected of winning schools or students.

In order to get in contact with the sponsors of contests a list was compiled of those organizations that had approached the schools with contests during the preceding year. Letters were sent to each of these sponsors explaining the problem facing the schools in regard to contests, the objectives of the contest committee, and the criteria which would be used in evaluating the contests. The sponsors were invited to fill in the application blanks and send them to the Contest Committee in case their organization wished to apply for approval of its contest.

Further to diffuse information regarding the work of the State Contest Committee a letter with copies of the criteria and application blanks was sent to the members of the Minnesota Secondary Principals Association requesting them to place a story of the project in their local newspapers. Thus the Contest Committee was able to contact organizations that planned to introduce new contests the next year.

Most of the sponsors of contests expressed a desire to cooperate with the State Committee. The majority of them, however, had difficulty filling in the application blanks, for their contests had not been planned carefully

enough to furnish them the necessary information. They could not be specific about the significant characteristics of the contest, how the winners would be selected, the names of the judges, the prizes to be awarded, or even the opening and closing dates. The members of the committee became convinced that the majority of these contests had been conducted in a very haphazard manner in the past.

Since this was the first year in its examination of contests, the Committee was somewhat lenient and gave the sponsors the benefit of some doubts. However, the sponsors were notified that their contests had been approved with certain qualifications and that certain changes would have to be made in their contest plans before they would be approved another year. This gave the organizations ample time to adjust their plans to better fulfill the Committee's criteria. Much revision will be necessary, for only three of the twelve contests which were approved this year would have passed a critical evaluation.

A list of the twelve approved contests was sent to each of the members of the Minnesota Association of Secondary School Principals. With it went a letter reiterating the fact that the Contest Committee does not advocate participation in the approved contests, nor does it have the power to say that a school cannot take part in contests which it does not approve. However, each principal was reminded that he can help develop and maintain a healthier situation by making it a point to inquire of each sponsor of a proposed contest whether it has the sanction of the State Contest Committee.

The present problem facing the Committee is that of prizes and awards. There are many questions to be answered, such as: Should the award be given to the student or to the school? Should it be in the form of cash, bonds,

material goods, or scholarships? What kind of an award can the student receive and still retain an amateur status in other activities? The Committee realizes the need for criteria that can be used in evaluating the prizes offered to the winners of the various contests and it is in the process of preparing them. It is hoped that these standards will be ready when the time comes to evaluate the applications of organizations wishing to sponsor contests during the school year 1948-49.

The reaction and cooperation of the high school principals of the state and the sponsors of the contests have been gratifying to the members of the State Contest Committee. They feel that a start has been made in the effort to bring under control the evils of this activity which has been thrust upon the high schools. However, there is much more to be done.

MINARD W. STOUT, Chairman
State Contest Committee

ACTIVITIES OF STATE COMMITTEES

Colorado

Three new members of the State Committee will be initiated into the committee workings of the Association this Spring. Mrs. Marguerite Juchem, Director of Secondary Education and Curricula in the Colorado State Department of Education, replaces Dr. John Unger. Reverend Edward Leyden, Archdiocesan Superintendent of Schools, becomes an advisory member. He succeeds Reverend Herbert Newell, who has become Coadjutor Bishop of Cheyenne. Robert C. James, Principal of the Junior-Senior High School, Grand Junction, Colorado, succeeds Walter Gore, now a member of the faculty of the College of the Pacific.

Interesting innovations and progress are reported by several smaller N.C.A. high schools. Erie and Louisville indi-

cate development of audio-visual aids programs with emphasis on classroom utilization. Among branch schools in the Logan County High School System the addition of agriculture and home economics is promising, as is also the reorganization and expansion of library facilities and services.

Under the direction of Wayne Bruton, Superintendent of Montrose County High School System, a regional meeting of board members and school administrators was held on the Western Slope, February 19, 1948. This was devoted to study of Board policies and educational philosophy as related to improved educational services. Fountain High School also reports progress on the development of written board policies through cooperation of faculty and board members.

As another step in improving libraries in Colorado high schools three members of the faculty of the University are developing book lists to assist administrators, teachers, and librarians in the selection of recent books—fiction and non-fiction. These are to be published semi-annually and will include sources of inexpensive and free library materials. Cooperating in this project are Mary Louise Lyda, Assistant Professor of Library, Robert Carlsen, Assistant Professor of English-Education, and Stephen Romine, Director of the Bureau of High School Counseling and Accreditation, through which agency the lists will be published.

STEPHEN ROMINE, Chairman

Iowa

The State Committee in Iowa is attempting to aid in improving secondary education in the state in four ways: (1) Working directly with the 172 North Central high schools in the state in maintaining effective secondary school facilities, (2) Providing consultation

service to administrators and boards of education, (3) Working with other educational agencies in the state on statewide programs such as curriculum development, and (4) Holding conferences to study and to discuss secondary school problems.

Organization and operation.—The Iowa State Committee is made up of five members as provided in the constitution of the Association. At present the committee includes the chairman who is a member of the staff of the College of Education of the State University, the Deputy State Superintendent of Public Instruction who serves as official representative of the State Department, and two superintendents and one high school principal elected by the member schools.

An Advisory Committee of five members works with the State Committee to provide more complete representation and more effective interpretation of the policies and activities of the Association. The Advisory Committee includes two high school principals, one superintendent, the Registrar of the State University, and the Dean of the Faculty of the State Teachers College. The administrators on the Advisory Committee are elected by member schools and the other two members are appointed by the State Committee.

The State Chairman serves as liaison officer between the member schools and the State Committee and all annual reports are processed in his office. The University provides the State Chairman with a full-time secretary who checks the annual reports, including official transcripts for all new teachers, and makes up the statistical summaries for the Secretary of the Commission on Secondary Schools.

The State Committee and the Advisory Committee meet early in January each year to review the annual

reports and to make recommendations for the accreditation of member schools in the state. Policies with reference to the evaluation of schools applying for membership, approval of interscholastic contests, cooperation with other agencies in the state on special educational projects, and related problems are discussed and acted upon at this January meeting.

Working with member schools.—The work of the State Committee with member schools is varied, ranging from purely advisory activities on such problems as teaching personnel and curricular offerings to the direction of school surveys.

Many administrators of member schools visit or write to the office of the Chairman each year concerning educational problems. Some of these are routine problems such as teacher selection, granting credit for military service, participation in interscholastic contests, etc. and some of them are much broader, dealing with such questions as curricular planning, the direction of community and student surveys, and the development of special educational services.

At the present time surveys of youth needs and follow-up studies of graduates and drop-outs are being conducted in four member schools under the direction of the State Committee. In another school a comprehensive community survey is being conducted as a basis for future educational development in that community. Results of these surveys will be duplicated and made available to all member schools in the state as soon as they are completed.

Consultation services.—Members of the State Committee not infrequently are requested to meet with local boards of education and school administrators to advise with them concerning local school problems. Sometimes these ac-

tivities are largely of the "trouble shooting" variety and sometimes they are concerned with constructive educational planning.

The "trouble shooting" activities usually grow out of violations of the regulations and criteria of the Commission on Secondary Schools. It has been the experience of the Iowa State Committee that when a member school has been faced with the possibility of losing its North Central accreditation, the local community has become actively concerned and has insisted that its board of education consult closely with the State Committee in planning its organization and policies so as to meet fully the standards of the Association. Fortunately, these "trouble shooting" problems are not numerous and most of the consultation work of the committee deals with problems of educational planning.

Members of the Committee also meet with the boards of education and administrators in schools applying for membership and assist the faculties of these schools in conducting evaluations. Certain of the procedures and materials of the *Evaluative Criteria* are used in these evaluations, but the complete procedure of self evaluation plus visiting committees has not been employed.

Cooperation with other agencies.—The State committee in Iowa has actively cooperated with other agencies and organizations in the state in developing special educational programs. The most extensive of these programs in recent years has been one of statewide curriculum improvement. This program has been developed with the State Department of Public Instruction and grew out of a series of discussion meetings held by administrators of North Central schools and the Iowa Secondary School Principals Association.

The state curriculum improvement program has been organized as a long-time project including study and discussion meetings on a county-wide basis, the development of illustrative curricular materials, experimentation, and evaluation.

Conferences.—Several conferences on secondary education are held in the state each year. One session of the annual administrators conference at the University is regularly devoted to secondary education and is planned jointly by the Chairman of the State North Central Committee and the Dean of the College of Education. This year the Secretary of the Commission on Secondary Schools will be the principal speaker and one session will be devoted to a discussion of North Central activities.

The State Committee has been active also in promoting meetings of the Iowa Secondary School Principals Association. This organization has been holding four or five meetings each year for the past four years to study and to exchange ideas on various secondary school problems. Principals serving on the State North Central Committee and on the Advisory Committee are elected at one of these meetings.

L. A. VAN DYKE, Chairman

Michigan

The annual conference of Administrators of North Central Schools in Michigan was held on Thursday, December 4, in conjunction with the annual meeting of the Michigan Secondary School Association at the Hotel Olds in Lansing. About one hundred were in attendance.

This conference serves as occasion for an annual business meeting of North Central representatives, with election of the new member of the State Committee, an account of the Chicago meeting, and a report to the member-

ship from the State Committee. Norris G. Wiltse, Principal of Ypsilanti High School, was elected to the State Committee. On this occasion it also included a panel discussion of problems presented by member schools and an address by Dr. Carl G. F. Franzén, Chairman of the Indiana State Committee. The panel was composed of Earl Place and Leon Weskin, members of the State Committee, and Principals Norris G. Wiltse, of Ypsilanti, Harry B. Sutter, of Wakefield, and Harold E. Jones, of Mt. Clemens.

Dr. Franzén discussed the topic "What the North Central Association Means to Indiana." He pointed out certain mistaken notions about the Association—that it confers upon member schools special privileges in the matter of College entrance or, on the other hand, places special restrictions on them. The positive benefits of membership were indicated as association in a group of "honor schools," stimulation to improvement through the services of the Association, and protection to schools from pressure either within the community or by outside groups.

The special activities of the Association in Indiana include the extensive use of the *Evaluative Criteria* of the Co-operative Study of Secondary School Standards for admission of new schools, an annual luncheon of Indiana members in attendance at the Chicago Meeting, and a two day clinic at Indiana University for intensive study of the North Central criteria and report blank. He indicated that two-thirds of the member schools in Indiana were represented at the clinic in the summer of 1947. In closing, Dr. Franzén indicated that the outstanding characteristic of the Association in Indiana is the esprit de corps developed among member schools.

EDGAR G. JOHNSTON, Chairman

NOTES FROM THE FIELD

Elkhart (Indiana) Senior High School

Organization officers need leadership training.—Elkhart High School believes that student activities, per se, do not guarantee training in citizenship, opportunities for creative thinking, use of good judgment nor in taking intelligent action.

It is felt that a student leader should:

1. Be aware of the meaning and responsibilities of the leader in a democratic society.
2. Understand his relationship to the total school program.
3. Recognize and plan the development of abilities in his membership.
4. Constantly appraise the value of activities.
5. Study end results in terms of student development.

To show their faith in such training, the Student Council has placed a limit on the offices a student may hold and has inaugurated a Leadership Training Program. In this program, the faculty treasurer sets up a training period for all student treasurers; a staff member from the commercial department is asked to train the secretaries; and the assistant principal and dean of girls alternate in the training of presidents and vice-presidents.

The last two groups meet more frequently than the others. Students, sponsors, and members of the guidance staff suggest topics for discussion and demonstration. These needs and suggested helps for meeting them are being organized into booklet form.

Although this program is in its infancy, we believe it is one answer to the challenge and need to train for active and creative citizenship.

Vocational night is valuable.—Many types of college days, career days and vocational conferences have been tried in as many cities. Each community must decide on the type which is most effective for its particular locale.

Our most recent vocational conference was held during the evening and brought representatives from several hospitals and business colleges. Over one hundred students, parents and staff members attended. Following a half-hour general session, short group conferences were arranged, so that students and their parents had an opportunity to confer with several representatives. The general session for business schools was led by the chairman of the commercial department and the nurses' training section by the supervising nurse of city schools.

Pre-guidance plans included newspaper articles, bulletin board displays, group meetings and discussions in the home rooms and business and home-making classes. Students had expressed the points which they wished clarified and those were organized and sent to the representatives well in advance of the conference.

Students served as hostesses, served coffee to the guests, acted as chairmen of all sections and reported all conferences.

We will consider the advisability of having several small conferences instead of two or three larger ones. Advantages which we see include:

1. There is greater opportunity for concentrated pre-guidance work when the areas are limited.
2. The conference period draws a smaller and more select group, and makes possible a joint child-parent-counselor program planning situation which in turn strengthens the entire guidance program.
3. There are more opportunities for student experience through their participation as described above.
4. The follow-up program can be more quickly accomplished by the teacher-counselors.

From classroom to living room by direct wire.—We push back the arm-chairs, draw the curtains, set up the mikes, turn a switch, and the speech classroom at Elkhart High School is a

radio studio ready for a rehearsal or a broadcast. In the sound proof control room are a student engineer and the teacher-director. The go-ahead signal is given, and the electric sign tells the actors around the mikes that we are "On the Air."

Five years ago we began with the "Your Schools" series of public relations programs on station WTRC in Elkhart and did our rehearsing in a classroom. By remodeling the old stage curtains for the studio walls, installing a control room, building our own sound wagon and cabinet in the school shop, it has been possible to keep the total cost to about \$1,200. The addition of direct wire makes us one of the very few schools in Indiana which can now really go on the air "from class room to living room."

The staff of WTRC has been very willing to design our amplifier and loan musical platters for proper effects, and when FM comes to this station, "Your Schools" will come to the people on both AM and FM.

Mount Clemens (Michigan) High School

Guidance conference.—Several teachers in the Mount Clemens High School attended a State Guidance Conference in East Lansing last fall. They were so filled with new ideas and the desire to spread the good guidance doctrine that they resolved to put the suggestions to their Mount Clemens Teachers' Club. The Club took hold of the suggestion with great gusto and immediately saw possibilities for excellent community, business and parental public relations. All the service clubs were contacted as well as leading men and women, the school board and parochial school leaders.

The response was very gratifying, and a Guidance Conference, beginning with a banquet, followed by a main speaker, Dr. Clifford Erickson, of

Michigan State College was launched. After the main speaker had set the pace and formulated many interesting challenges, the audience went to one of three group discussions led by Mr. Horn, Mr. Hatch and Mr. Hardin, all from the Institute of Testing, Counseling and Guidance, in East Lansing.

The citizens were pleased and inspired and the teachers were more than ever impressed with the vital importance of their profession and the need for working more closely with boys and girls.

Two results of the Conference will prove to be very stimulating to both pupils and teachers.

A career conference given by the seniors for visiting out-of-town seniors, and outstanding career speakers to discuss vocational opportunities, is one plan now being worked out.

The other is a day spent by the teachers and business people in one large industry in the community. Both should prove most worthwhile and serve to better public relations.

Plymouth (Michigan) High School¹

Pupils in charge of junior and senior high school.—In general the planning for greater pupil participation in democratic school living, it was decided that the pupils ought to be given the privilege of taking charge of the entire junior and senior high school for at least one day during the year. The preliminary planning included discussions among the administrators, teachers, and the student council. The student council went on record as advocating that such a program be inaugurated during Education Week. This was in line with consensus of opinion that it probably would be of more value if, in bringing out the importance of Edu-

cation Week, we could make use of so effective a tool in the development of school citizenship. Relatively few stipulations were made. The most important were:

1. Pupils taking charge of classes, study halls or other activities should be selected by their classmates.
2. No pupil was to be in charge of more than one class, study hall, or activity.
3. Inasmuch as the student council is the administrative agency for the student body, only student council members could be in charge of the activities in the guidance office and principals' offices.

To evaluate the effectiveness of such an experiment, a request was made that pupils and teachers report on the value of such a program. This was done in order to determine ways of improving the general school pattern as well as to provide information for similar future experiments. Reports received from approximately two hundred pupils and forty teachers were combined by teachers in subject fields or departments. In the final report every effort was made to eliminate sectional subject matter.

The pupils' reactions could be summarized under the following categories:

1. The program should be repeated.
2. More pupils should be given an opportunity as leaders.
3. Fellow pupils were cooperative.
4. There was a great deal of respect shown.
5. There was a tremendous personal gain.
6. It was a lot of fun.
7. Teaching is a task.
8. The regular teachers received some new ideas.

It was the consensus of the pupils who were in charge of the various classes that the program be repeated. On the basis of the pupils' comments, a better program could be carried out another time. There was some evidence of some dissatisfaction, but on a percentage basis those not desiring a repetition were only two percent of all the

¹ Reported by L. E. Schmidt, Principal.

pupils reporting. One of the comments indicating disapproval was, "I thought pupils were not interested enough and not serious enough." One of the many comments suggesting repetition was, "I believe the programs should be repeated with the student body gaining more from it each year." Some of the comments carried an item suggesting that the same thing be done more often.

Some pupils suggested once each semester, and some suggested several times a semester. It seemed to be the general attitude of the pupils that there should be a greater opportunity for other pupils to share in this type of educational experience in order to appreciate fully the place of the school in developing youngsters for living in a democracy. Comments along this line of thought were: "The project should be carried out more often so that every student could take part." "This sort of thing is done too rarely to gain the results desired—more frequently would give more effectiveness." The pupil reaction was that by offering the opportunity to more individuals the ultimate goal of 100 percent cooperation would be reached. There was a definite relationship between the percentage who were not in favor of the program and the pupils who failed to get fellow-classmate cooperation in the various classes or activities. According to the majority of the pupils in charge, there was a whole-hearted appreciation of the cooperation of the student body. Naturally, there were a few cases where the pupils in classes felt the day was to be a holiday, but the number of instances was relatively small. Pupils' comment on cooperation stated: "The students are very willing to cooperate and show their consideration for a teacher." This cooperation is a fine example of citizenship." "One or two students tried to take advantage of the student teachers, but as a rule most of

the students cooperated very well." On the other side of the picture, we have the following: "I think the students took advantage of the student teachers and did not cooperate as much as they should have." "In mixed groups, in junior high school, there was a tendency not to cooperate with girls in charge of classes."

The majority of the pupils who took charge of the classes felt that they got far more from the program than did those in the class. There was a definite appreciation of their responsibility; that teaching was a task which required a considerable amount of effort on their part. Many of them felt that the personal gain was an outstanding result of the entire experiment, and as one boy put it, "The day seemed profitable to all to have a chance for the students to learn more about the teaching profession and administration." Another statement was: "It taught the teaching student a sense of responsibility and with what the teachers have to cope."

As a result of the experiment, the pupil attitude relative to teaching was quite interesting. There was evidence of a greater appreciation and understanding of the teaching profession. If the teaching profession were interested in getting publicity this sort of thing done more often during the year, would probably be quite effective. Some of the comments that were given were as follows: "I learned that teaching was not as simple as I thought." "I realize teaching is practically a 24-hour job." "You won't hear me saying a teacher's job is easy any more." "I did not realize that it was so difficult, and that a teacher goes through that every day." "It lets the student know how difficult a teacher's position is and thereby one can appreciate a teacher more." Some of the comments in the category regarding teachers receiving some new ideas were somewhat vague, and in

cases humorous, but there were definite truths. One pupil expressed it this way, "That students teaching, if they use their own method, would give the teachers new ideas." Several thought they had given the teachers new ideas though they weren't specific as to what ideas. Some pupils commented that classmates felt more free about asking questions in a pupil directed activity, than in a teacher directed one.

From the teacher angle the majority of the faculty were in accord with the idea that students take charge of the various activities. Of course many of them had been doing that sort of thing in class regularly, or at least periodically. Those who expressed definite dissatisfaction represented approximately 4 percent of the faculty. It was interesting to note that the 2 percent of the pupils who expressed dissatisfaction were primarily from the classes of those teachers representing this 4 percent.

The comments from the faculty fall in the following general classifications:

1. The program should be repeated.
2. There was a definite sign of cooperation.
3. Pupils assumed the responsibility seriously.
4. There was an appreciation of the problems of teachers and pupils.
5. The program should be enlarged in order to provide opportunity for more pupils.

The feeling relative to repetition of the program might be best expressed by the attitude of the teachers in one department: "We believe it should be an annual event—each year would show improvement on past seasons." A pleasing comment was, "I was not too well pleased at first but since have seen greater possibilities of making more effective use of this type of teaching." One comment as a reason for repetition of the program was, "I have always believed that a student in charge of a class builds self-confidence."

Under the preceding item of coop-

eration, many of the teachers made such comments as "It was fine," "Commendable," "Pupils accepted classmates' authority," "There was 100 percent cooperation." As was previously mentioned, there were some cases where this cooperation was not up to that 100 percent level. That was especially true in those classes where there was the feeling that "The day was a Holiday" and that "The program was a joke." For the most part, the pupils took the program seriously sensing their responsibility and did a fine job in preparing for the day's work. In the words of one teacher, "It was a fine experience for a group whose greatest aim is preparation for democratic living." Other comments were, "I was surprised that the student teachers did as well as they did," and "There was an evident appreciation of the problems of teachers." Teachers also seemed to feel this was good for both the class and student teachers, for each learned of the others' jobs. There was also the feeling "That the greatest good lay in the feeling of comradeship between pupils and teachers." One expressed it another way, "That if the day had value it lay in the kinship of spirit by turning over our places to students.

It was very evident that a great deal was gained by all. Pupils as well as teachers requested a repetition of the program. Both expressed a desire for greater opportunities for more pupils, and expressed appreciation of the cooperation of pupils. There were some evidences of dissatisfaction.

Greater care could be given to adequate planning. Instructors could and undoubtedly would guide the pupils and help plan a better program on the basis of past experience. The administration could plan more time for the developing of the project. Provision could be made for those who would serve in administrative capacities to

meet with pupils who would direct classroom activities.

REPORTS OF FRATERNAL DELEGATES
TO THE ANNUAL MEETINGS OF
OTHER REGIONAL ASSOCIATIONS

It is a friendly custom for the respective regional associations to exchange greetings and kindred courtesies on the occasion of their annual meetings by sending fraternal delegates to these gatherings. The North Central Association was so represented this year as follows:

New England: R. NELSON SNIDER, immediate past president of the Association.

Middle States: EDGAR G. JOHNSTON, Secretary of the Commission on Secondary Schools.

Southern: JOHN R. EMENS, President of the Association.

Goerge W. Rosenlof, secretary of the Association, was unable to attend the meeting of the Northwestern Association to which he was accredited.

The New England Association

When the problems of your school position—secondary or college—become so great that there seems to be no solution, and when you begin to think that there is no possible hope that the touchy question of relationships between the secondary schools and the colleges of this section of the country can be answered, have the North Central Association send you as a delegate to the meeting of one of the other Regional Accrediting Associations. This trip will not furnish an answer to all of your problems, but it will convince you that you are struggling with the same situations which face school men and women in all portions of our country.

My visit as a delegate to the Sixty-second Annual Meeting of the New England Association of Colleges and Secondary Schools in Boston on December 12 and 13 assured me that

school problems everywhere are about the same, and reassured me as to the direction which our own Association is going. I found College and Secondary School men and women in New England discussing the same questions we consider, arriving at much the same conclusions which we reach, and trying always to improve all types of school procedure.

In the Friday afternoon session the presidents of Bryn Mawr and Connecticut Wesleyan colleges, and a headmaster from New York, presented discussions on the topic, "Where Do We Go From Here?" The answer sounded much like the ones we hear each year at our own annual meeting. There was emphasis upon differentiation of work according to abilities, work experience, and closer correlation between school work at different levels of organization.

The Saturday morning program dealt with two problems which are of vital interest to both college and secondary school people. One of these was the new Army training program, with its implications of future universal military training. The other was the matter of college entrance in these days of enlarged enrollments. As all of us know, the difficulty which graduating seniors encounter in securing admission to college has led to the placing of applications in two, three and even more, institutions, with the resulting uncertainty of the college concerning its accepted list. Figures cited seem to indicate that the problem next year will be less difficult, for, though the enrollments of colleges are at an all-time high this year, the number of students entering college for the first time last fall dropped about 21 percent. This would seem to indicate that the slack caused by the war years has been taken up, and that secondary school graduates in future will have a better chance of

getting into the colleges of their choice.

The annual banquet Friday evening was one of the most enjoyable occasions I have ever attended. President Samuel T. Arnold presided with dignity and grace and an excellent sense of humor. The delegates from the various accrediting associations spoke briefly. Dr. Galen Jones, delegate and president of the Middle States Association gave a short talk on the high school of the future. The high light of the evening was the talk by Hon. James McConaughy, Governor of Connecticut, and former president of the New England Association. Governor McConaughy is living proof that in New England experience in the classroom does not bar a capable and earnest man from political office. In his position as governor Mr. McConaughy has headed a strong drive for the continued improvement of educational opportunities in his state, and serves as a constant example to other governors to do the same throughout the country.

R. NELSON SNIDER, Past President
of the North Central Association
Fraternal Delegate

The Middle States Association

The Haddon Hall Hotel on the Boardwalk at Atlantic City was the scene of the annual convention of the Middle States Association of Colleges and Secondary Schools on Friday and Saturday, November 28 and 29. The hotel provided an attractive setting for the meeting and the sunshine on the boardwalk was refreshing to the North Central delegates, who had just escaped from a blizzard in the Middle West.

The Middle States Association and the North Central have a number of common interests and points of similarity and some striking differences. The program of this annual convention reflected some of the same areas of con-

cern as have engaged our attention. Like our own Association, the Middle States group has been concerned with new procedures in appraisal, with the Cooperative Study of Secondary School Standards, and with cooperation of colleges and secondary schools.

The Friday morning session opened with a report on steps in Association reorganization by Secretary Karl G. Miller and a financial report by the treasurer, Burton P. Fowler. Frank H. Bowles, Chairman of the Commission on Institutions of Higher Education spoke on "New Procedures in the Evaluation of Higher Institutions." His address was followed by three brief reports by President Levering Tyson of Muhlenberg College as chairman of a college inspection committee, by Vice President Millard Gladfelter of Temple University as member of an inspection committee, and by Monsignor Edward Jordan, Vice Rector of the Catholic University of America as representative of an institution inspected. The "Evaluation Program of the Commission on Secondary Schools" was presented by Professor R. D. Matthews, Chairman, and Dr. Ira R. Kraybill, Executive Secretary of the Commission. One of the topics on the morning general session, which strikes a similar note, was "Developing Closer Cooperation Between Schools and Colleges," with Professor E. D. Grizzell as speaker.

The general session of Friday afternoon presented a panel discussion of the topic "Education for Human Relations," with Dean Henry Grattan Doyle of George Washington University as moderator. Those who were in attendance at the Wednesday morning session of the Secondary Commission last March will remember the discussion of a comparable theme by Philip Kennedy of the Oak Ridge High School, Pro-

fessor Theodore Brameld of the University of Minnesota, and a stimulating panel of high school young people. The dinner session carried the customary greetings from fraternal delegates from the other Associations and was to have featured an address by Foreign Minister Jan Masaryk of Czechoslovakia. On account of international developments, Mr. Masaryk was unable to be present, but his place was ably taken by Clarence R. Pickett, Executive Secretary of the American Friends Service Committee, which recently shared the Nobel Peace Prize for its contribution to international understanding and good will through wartime relief service. The final meeting of the Association was a general session on Saturday morning when Chancellor Jaime Benitez of the University of Puerto Rico spoke of educational problems in that island.

Various affiliated Associations held meetings in conjunction with the Middle States Association with most of the sessions opening on Saturday morning. These organizations included the Eastern Association of College Deans and Advisors of Men, the Middle States Association of Collegiate Registrars, the Middle States Science Teachers Association, the Association of Modern Language Teachers of the Middle States, the Classical Association of the Atlantic States, the Junior College Council of the Middle Atlantic States, the National Catholic Educational Association, College and University Department, Eastern Regional Unit, and the Middle States Council for the Social Studies.

The most notable difference in the meeting of the Middle States Association to one who is accustomed to attendance at the annual Chicago meeting, is the absence of the Commission activities and the concentration of the

entire program into a day and a half of general meetings. In contrast to the twenty states of the North Central Association, the Middle States Association includes five states and the District of Columbia. Consequently, much of the business which is handled by the Commissions in our organization is carried out through the central office and at other times than at the general meetings. There are only two commissions—a Commission on Secondary Schools and a Commission on Higher Education—and the smaller number of member institutions makes possible a more intimate and informal type of gathering. One of the most significant phases of the activities of the Secondary Commission of our Association has been the review of reports from member schools by reviewing committees, which has involved from 200 to 300 administrators of member schools annually. For the Middle States Association, this participation by member representatives is carried on through the use of the Evaluative Criteria. Several years ago the Association adopted the procedure of evaluation of all member schools by the Cooperative Study Procedure once in five years, using a representative visiting committee in the evaluation.

Your delegate found the occasion of the Middle States Convention a pleasant opportunity for renewing a number of pleasant associations formed during his year as field representative for the Cooperative Study of Secondary School Standards, particularly with E. W. Grizzell, Chairman of the Joint Committee on School and College Relations, and R. D. Matthews, Chairman of the Commission on Secondary Schools, who will be remembered for his direction of evaluation in several of the North Central states and participation on the Association program in the spring of 1939. It should also be a matter of some sat-

isfaction to North Central members that the new president of the Middle States Association, Galen Jones, Director of Secondary Education in the United States Office of Education, was at one time an administrator of a North Central school and active in the deliberations of this Association.

EDGAR G. JOHNSTON, Secretary of the
Commission on Secondary Schools
Fraternal Delegate

The Southern Association

It was with distinct pleasure that I acted as a delegate of the North Central Association to the meeting of the Southern Association of Colleges and Secondary Schools held at the Brown Hotel, Louisville, Kentucky, on December 1, 2, and 3, 1947.

I attended meetings of the Commission on Institutions of Higher Education, the Commission on Secondary Schools, and the Commission on Curricular Problems and Research, as well as one or two general sessions and the grand finale, a dinner meeting. Interestingly enough, I found that some of the very problems that we are discussing are being given major consideration by the Southern Association. Such items included general education, the accrediting of schools for graduate education, the desire to eliminate the word "inspection" and to substitute the word "service," and similar items.

A novel idea, at least to me, was a special ceremony at the dinner meeting honoring all the past presidents of the Association and presenting to each one of them a diploma signifying individual life membership in the association.

One of the outstanding events was the talk made by Charles E. McAllister President of the Association of Governing Boards of State Universities and Allied Institutions.

Dr. Doak S. Campbell, President of Florida State University, was the able presiding official, and I am the official bearer of greetings from the Southern Association to the North Central Association of Colleges and Secondary Schools.

JOHN R. EMENS, President
of the North Central Association
Fraternal Delegate

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PRIMER FOR THE TEACHERS OF THE HUMANITIES IN ENGINEERING SCHOOLS

MENTOR L. WILLIAMS¹
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CLASSIFICATION has become one of the applied sciences. By means of classification we examine, categorize, and place in its proper compartment each idea, fact and personality. When some particular striking differences occur, a new compartment is created. "Compartmentalization" is a cumbersome term; it is a good term for a cumbersome and confusing process. For compartmentalization separates things from other things; it prevents the recognition of very real relationships by stressing the differences instead of the similarities between the elements of our experience. The more we allow the habit of compartmentalization to tyrannize over our minds, the less we find understandable in our total experience. The more we give to the specialists, the less we know about our common problems. As Emerson phrased it:

It is one of those fables which out of an unknown antiquity convey an unlooked-for wisdom, that the gods, in the beginning, divided Man into men, that he might be more helpful to himself; just as the hand was divided into fingers, the better to answer its end.

The old fable covers a doctrine ever new and sublime; that there is One Man,—present to all particular men only partially, or through one faculty; and that you must take the whole society to find the whole man. Man is not a farmer, or a professor, or an engineer, but he is all. Man is priest, and scholar, and statesman, and producer, and soldier. In the *divided* or social state these functions are parcelled out to individuals, each of whom aims to do his stint of the

joint work, whilst each other performs his. The fable implies that the individual, to possess himself, must sometimes return from his own labor to embrace all the other laborers. But, unfortunately, this original unit, this fountain of power, has been so distributed to multitudes, has been so minutely subdivided and peddled out, that it is spilled into drops, and cannot be gathered. The state of society is one in which the members have suffered amputation from the trunk, and strut about so many walking monsters,—a good finger, a neck, a stomach, an elbow, but never a man.

Nowhere has the tyranny of classification wrought more havoc than in separating human beings from each other, from the whole man. Not only do we have racial, national, religious classification with implicit, voluntary, or overt segregation; we also have occupational and cultural classification. Prodigious efforts are being made to eliminate some of the more grotesque and inhuman aspects of the first type of compartmentalization. We have finally come to recognize that it is destructive to both social and individual welfare. Occupational and cultural classifications, however, are still considered part of the pattern of individual differences and are accepted as useful and desirable methods of organizing the data of experience.

Because of this belief the engineer has been given a special compartment to occupy. In that compartment there is room for further classification: civil, mechanical, electrical, chemical, industrial, aeronautical, etc., etc. Often crowded into the same cramped quarters are the technician, the technologist, the mechanic, the draughtsman, the research scientist, and a dozen others.

¹ Mr. Williams asserts that "teachers in non-technical colleges seldom read anything to counter their belief that all engineers are different or 'unculturable.'" Therefore his treatment of the place of the humanities in engineering education is published in the *QUARTERLY* to reach such teachers in the North Central area.

From the sounds that outsiders hear all is not harmonious within, either. Nevertheless, our society today employs the term "engineer" to designate that class of persons who transform matter and power into structures, machines and manufactured products. If the classification went no further, no harm would result. It does not stop there. By peculiar processes of association certain halo concepts gather about the term. An engineer is a hero serving the cause of progress. He plans and builds the future. He is an expert. He is a practical success. He is a wizard, a master, a genius. He is the idealized Buck Rogers. From politician to comic strip reader, the engineer is tops—a superior being. Long conditioning has led many engineers, especially the more innocent students, to believe in this acquired immortality. The net result is the peculiar and clumsy arrogance typified in the much-quoted school song of Georgia Tech. Students in engineering colleges look upon the liberal arts scholars as softies, not capable of realizing the facts of life, not yet dry behind the ears. On the other hand, students in the large universities, where the engineer is a member of a minority group, look upon him as a distinctly inferior species or sub species of the *genus studentia*. What is worse, one often hears similar uncomplimentary opinions voiced by the teachers of liberal arts subjects, especially in those schools where the teacher comes in contact with both technical and non-technical students. Now, these are all clearly "folk" attitudes; behind them lies an amazing list of assumptions easily accepted by both students and instructors. The "humanistic stem" of technical education can neither flower nor bear fruit unless these assumptions are analyzed and their fallacies exposed.

The belief that the engineer or technologist is a different species of human

being than the doctor, lawyer, teacher, business man, artisan, or housewife rests on the assumption that there is an important difference in the relation of the engineer to his work. Teachers encourage and students accept the notion that the scientist-engineer is more free of bias, prejudice, and social pressures than the social thinker or the artist. It is this mischievous assumption that lends support to another equally fallacious one: that the scientist-expert has more fundamental relations with *truth* because he has learned a method of testing truth. If it has served no other purpose, the history of science and technology certainly has taught us that the scientist-engineer is as full of prejudices for his pet theory or special method as any other human being. Scientific conservatism is frequently little more than base irrationality. As for social pressure—economic or political—no engineer can deny the presence of such pressures and the ready yielding to them. Instance the acceptance of the structural steel codes, even though such codes are known to consume, extravagantly and wastefully, more steel than is needed. The method of testing truth—the scientific process of verification—is no monopoly of the scientific expert; it is as available to the sociologist as to the physicist, to the political scientist as to the chemist, to the literary critic as to the aeronautical engineer. Once the engineer ventures outside his special field, his judgments and decisions are as reflective of bias, tradition, and environmental determinants as those of his "less fortunate" non-technical neighbor. There is no carry-over in learning the scientific approach to truth unless there is the *will* and the *desire* to carry it over. Oddly enough, the compartmentalization of knowledge is probably what prevents him from taking the scientific method out of the science compartment into

the social or political areas he must enter when he leaves the laboratory.

Another false assumption underlying the alleged difference between the engineer and the non-technical person is that the technologist is more objective toward his subject of investigation than the student of the humanities. It is asserted that the scientific mind is coldly impersonal and completely free of the emotional lures which produce inaccuracy in other types of investigation. Without resorting to the American motion picture for evidence, everyone knows that the engineer feels the same emotional pulls in his work as anyone else. Pride, hope, desperation, penuriousness, generosity, hate, malice, stubbornness, perversity—all play their part in construction and investigation. The love of a technologist for his creation is equalled only by the love of the artist for his painting or the poet for his poem. Emotionally, the two situations are psychologically identical. To assume greater objectivity in one who works with sines and cosines than in one who works with paints or images is to violate the first principle of creativity: the concept is in the mind and the mind is fanatically possessive of its creation, often to the exclusion of a critical sense.

Still another assumption that helps to strengthen the notion that the engineer possesses a different type of personality than the student of the humanities is the belief that the scientist-technologist rightly and profitably ignores the impractical, the visionary, the imaginative; that he has his feet on the ground and his head a moderate distance above his feet. This belief is open to question. Engineers dream, propose schemes that their colleagues denounce as visionary, have high hopes for mechanical solutions of many of man's problems. Engineers are often extraordinarily obtuse about recognizing

the human factor. Witness the wishful way in which they tackle the problem of making airways and airplanes safe for travel. No amount of engineering know-how and skill can make a pilot quit taking short cuts. The public, however, like many engineers, has a naïve and impractical idea that flying can be made absolutely fool proof some day by the continued application of engineering techniques.

There is another area in which apparent but not real differences have driven the engineer and the humanist into separate camps. That is the area of symbols employed in organizing experience and effecting ends. Ask almost anyone and he will insist that mathematical and substance symbols and formulae are more concrete than are verbal symbols. Ask almost anyone and he will maintain that the structural patterns of steel, concrete, and plastic are more real than the structural patterns of a poem, essay, or short story. Almost anyone will contend that the manipulation of material substances is more readily accomplished than the manipulation of words and concepts. Almost everyone believes that greater exactness is possible in scientific communication than in verbal communication. That is, almost everyone but the philosopher, the semantist, the investigator of meanings. It is a matter of record that the language and symbols of technology and engineering are subject to the same confusion of meaning, the same lack of concreteness, the same inexactness as the verbal symbols employed by the politician, the economist, the scholar, and the critic. Scientific and technological men ask the question, "What do you mean by that?" as often as those who employ mere words and word patterns. Technical papers, filled with the jargon of special technologies, offer the same difficulties in determining

meaning as papers written by economists or philosophers. Each passing year adds examples by the score to those "errors in calculation" exemplified by the Tacoma Bridge.

If *structure* means anything at all, it means *form*. The structure of a machine, operating perfectly in its mechanical complexity, is no more real than the structure of a symphony or a concerto. The form of a poem is no less real and tangible than the structure of a cracking plant or a strip steel mill. The structure of a novel or a drama is no more nonexistent than the blue print of a building, the pattern of a tool, or the mold for a casting. Engineers are pleased when art uses the language of technology, "architectonics," "pulsation," "wave length," "catalyst," "coordinates"; they are equally pleased when art terms are applied to technology, a "poem in steel," the "symphony of power," the "dance of electrons," the "music of traffic," a "picture in rails." Sandburg's "Lay me on an anvil, O God, and beat me into a crowbar" strikes the soul of the engineer as much as his "The fog comes on little catfeet" thrills the seeker after beauty. Photographers, etchers, painters, composers grasp the structural and symbolic concepts of industry and machines as easily as the engineers themselves. The insistence on fundamental differences in the material of experience and the organization of that experience arises not from basic difference, but from pride and prejudice.

Very real damage results when these assumed differences in attitudes and symbols are made the basis for psychological and content divisions between the humanities courses for engineers and the humanities courses for non-technical students. Consider first the effect of the foregoing assumptions upon the educational psychology of

students and teachers. All too prevalent are these beliefs:

Engineers are less able to deal with philosophical problems—ethical, ontological, metaphysical than other students.

Engineers are less able to appreciate aesthetic and imaginative materials—art, music, literature.

Engineers are less capable of grasping the cultural and historical significance of human experience—history, anthropology, sociology.

Engineers cannot make a satisfactory analysis of the patterns of contemporary civilization—economics, political science.

Stuff and nonsense. Teachers who accept these psychological limitations are defeated before they enter the classroom. Students who approach the educational process with these preconceptions are doomed to inadequate performance in such classes.

Too often the content and pedagogical methods of the humanities courses are modified to fit these deformed and non-humanistic ideas. Thus we continue to find catalogues of schools of engineering cluttered with titles like English Composition for Engineers, English Literature for Engineers, Fine Arts for Engineers, Advanced Writing for Engineers, etc., etc., *ad nauseam*. The poor, culturally blighted engineer or technologist must have the intellectual content of his courses cut to his measure, tempered to his capacities. It is sound and fury signifying nothing. A wise and skillful teacher of the humanities makes no such assumptions of incapacity or impotence. He begins where the student is and leads him on to the understanding and comprehension which is expected of every educable human being. A sincere and earnest student will accept no such insult to his intelligence and will insist that he be given the full advantage of a rich and meaningful course, not a watered-down, depreciated, spurious imitation of culture.

There are, of course, differences between engineering and other students. Those who choose engineering or technology manifest a more overt, intense interest in plastics, electronics, Diesel engines, jet propulsion, fluid mechanics, etc. than other individuals. To some it seems that they eat and sleep with sliderules in their pockets and formulae in their heads. The scientist-engineer is boldly and openly proud of his interests. He can bore the humanities student to extinction with a perpetual chatter about stress, strain, and the laws of thermodynamics. On the other hand, the student who studies art, literature, social controls, is likely to be shyer and more introverted about his interests. One frequently has to pry them out of him. Another difference, though not an insuperable one, is that the technological student is not as well grounded in the elementary and fundamental knowledge and techniques of expression as might be wished. He is usually deficient in reading skills as well as in acquaintance with the more obvious facts of literature and history. His general background is weak.

Two reasons, both sociological and external, not inherent, account for these differences. In the first place, the technological student frequently comes from those strata of society where economic and therefore cultural advantages are meagre. His parents wish him, and he wishes also, to move into a more "respected" economic class. Hence his eagerness to pursue, as rapidly as possible, a course of instruction that will bring him economic security. In our civilization the rewards promised the engineer *seem* surer and greater than these offered in the other areas of education. Our civilization, too, offers more prestige and quick social acceptance to the man of technical skills. It openly questions the validity of a non-bread-

and-butter schooling. Consequently, this student feels pride and can express that pride overtly with little fear of challenge or stigma. In the second place, the technical student is undernourished in our secondary schools. Lacking a cultural background he is shunted into a curriculum that stresses mathematical and manual skills. He takes shop instead of fourth year English; he takes chemistry, physics, and mathematics and the minimum of history and languages. He gets good grades in "technical" subjects and is considered a "dummy" in language and literature. Why sweat over them, then? He doesn't. He is "excused" from "cultural subjects" to work on projects, to set up laboratory experiments, to "do things" for the school. In these activities there is honor and approval; in other classes there is tacit disapproval. That these factors are external and not inherent is substantiated by the fact that a surprising number of engineering students awake to cultural or humanistic needs during the last two years in college or after they graduate. They suddenly discover music; they sheepishly admit that they have never seen a legitimate play and ask advice on what to see; they become severely critical of the average motion picture diet; they request book lists; they begin arguing about political and economic issues. The engineer thus comes to realize as Emerson said "that the individual to possess himself, must sometimes return from his own labor to embrace all the other laborers."

Are the teachers of the humanities ready and able to embrace *him*? Not unless they have freed themselves from all false assumptions leading to false generalizations about a horse of a different color or a different breed of cats. They must teach from sound postulates: (1) An engineer-technologist is

primarily a human being possessed of a mind that functions like all other minds. (2) The processes by which an engineer-technologist organizes experiences and communicates ideas are subject to the same influences—imagination, prejudice, tradition, logic, semantic confusion, as those by which an artist, philosopher, historian, or moralist organizes experiences and communicates ideas. (3) The courses in the humanities must be taught with a view

to the end result, not with laments for immediate deficiencies. By recognizing and emphasizing the similarities among students, rather than the peculiar, non-inherent differences, the teachers of the humanities may discover and translate “a doctrine ever new and sublime; that there is One Man—present to all particular men only partially or through one faculty; and that you must take the whole of society to find the whole man.”

FACULTY STATUS IN MEMBER COLLEGES AND UNIVERSITIES
OF THE NORTH CENTRAL ASSOCIATION OF COLLEGES
AND SECONDARY SCHOOLS, 1945-46

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THE report on Faculty, on which this study of faculty status is based, is one of the series of three regular biennial reports required of all member colleges and universities of the North Central Association of Colleges and Secondary Schools. The second in the series of biennial reports in the six-year cycle provides data on the financial status of member institutions; the third, data on institutional libraries. This system of reporting was adopted in 1940. These reports serve a dual purpose: to provide data for the revision of norms used in connection with the evaluation of institutions applying for membership in the Association, and to provide for a periodic check on the status of member colleges and universities.

Had it been possible to follow the regular time sequence in the series of biennial reports, the report on Faculty would normally have been made during the academic year, 1943-44. However, because of the dislocations caused by the War, it was felt necessary at that time to postpone the study of faculty status. Subsequently, the decision was made to request faculty reports as of the Autumn of 1945.

Under the procedure adopted in 1940 the forms used for the biennial reporting are prepared by the Committee on the Evaluation of Accrediting Procedures, assisted by sub-committees representing each of the four groups of institutions into which, for the purposes of the accrediting activities, the member colleges and universities of the Association are divided. These groups are defined as follows:

Group 1.—Institutions offering two-year programs beyond high school graduation.

Group 2.—Institutions offering only Bachelor's degrees in a single unitary organization. Institutions offering only an occasional Master's degree may be included in this group.

Group 3.—Institutions organized in more than one but not more than three separate administrative units; and institutions which regularly offer Master's and/or professional degrees.

Group 4.—Institutions offering Doctor's degrees; and institutions organized in four or more units and which regularly offer Master's and/or professional degrees.

In accordance with this procedure the faculty report forms were prepared and distributed in the Autumn of 1945. Individual reports were made by approximately 25,000 faculty members from the 307 participating colleges and universities. On the basis of the data secured, the norms on Faculty were revised. A summary of the findings is presented below, together with a presentation of some of the changes which took place between 1935-36, the year of the previous faculty study, and 1945-46. On a few of the items data were not available from all of the institutions and on the measures pertaining to salary the fifty participating Catholic institutions were excluded.

The 1945 faculty report forms provided data for the revision of norms on sixteen criteria which investigation has shown to be related to general institutional excellence. All of these criteria are ratios, percentages, means, or medians which are statistically computed. The scores which are presented in the tables below are institutional scores.

The first ten items relate to the area referred to in the *Revised Manual of Ac-*

crediting as "Faculty Competence." They are Doctor's degrees, Master's degrees, graduate study, graduate training in teaching subject, educational experience, publication of books, publication of articles, memberships in learned societies, attendance at meetings of learned societies, and participation in the programs of learned societies. Five measures pertain to the area of "Conditions of Faculty Service." Of these five measures three relate to salaries; they are the median instructional salary, the maximum instructional salary, and the median administrative salary. The two other measures relate to teaching load and to aids to faculty growth. The norms on student-faculty ratio were also revised, but these data are not presented here since comparable data for 1935-36 were not available.

FACULTY COMPETENCE

In accordance with the instructions given in the *Revised Manual of Accrediting* the computation of scores on the ten criteria which are included in this subsection is based only on those faculty members who teach at least a part of the time; this is understood to mean that all personnel of the rank of instructor and above on both full-time and part-time appointment basis and who teach, and all administrative officers who have teaching duties have been included. For the first three criteria (Doctor's degrees, Master's degrees, and graduate study) teachers in fields where the normal objectives of an individual's training is neither the Master's degree nor the Doctor's degree are not included. The fields which are so omitted are dentistry, engineering, fine arts, law, medicine, music, nursing, and pharmacy. Individuals teaching only in the summer session are also omitted.

Doctor's Degrees.—The measure of

the criterion of evaluation known as "Doctor's Degrees" is the percentage of the teaching staff as described above who hold an earned doctorate. In this study calculations on this item were limited to those teaching staff members who hold the earned degrees of Doctor of Philosophy, Doctor of Education, and Doctor of Science.

TABLE I
SCORES ON THE ITEM "DOCTOR'S DEGREES" FOR
MEMBER COLLEGES AND UNIVERSITIES FOR
THE YEARS 1935-36 AND 1945-46

| Percentile Rank | Scores of 276 Institutions 1935-36 | Scores of 305 Institutions 1945-46 | Change in Score |
|-----------------|------------------------------------|------------------------------------|-----------------|
| 90 | 44.4 | 53.4 | 9 |
| 80 | 35.7 | 47.7 | 12 |
| 70 | 30.1 | 42.8 | 12.7 |
| 60 | 27.1 | 38.5 | 11.4 |
| 50 | 24.2 | 34.4 | 10.2 |
| 40 | 21.6 | 30.5 | 8.9 |
| 30 | 18.0 | 25.4 | 7.4 |
| 20 | 13.7 | 20.6 | 6.9 |
| 10 | 7.1 | 10.7 | 3.6 |
| 75 | 32.2 | 45.0 | |
| 25 | 16.5 | 23.0 | |
| Q | 7.9 | 11.0 | |

Table I shows the institutional scores by deciles for Doctor's degrees for the two academic years 1935-36 and 1945-46. To the extent that the percentage of Doctor's degrees is a valid measure of faculty competence, the faculties of member institutions of the North Central Association were strengthened during the ten-year period. It will be noted that the median score shifted from 24.2 to 34.4—a point increase of 10.2. An institution with a score on this item which would have placed it at the median in 1935-36 would rank slightly below the 30th percentile in 1945-46, in other words, in the lowest third of the distribution. The middle 50 percent of the scores on the 1945-46 study lies between 23.0 and 45.0 while on the

earlier study the range of the middle half of the scores extends from 16.5 to 32.2. The increases in scores were greater above the median than below the median.

The later study shows a wider deviation from the median than does the earlier study. The quartile deviation on scores for Doctor's degrees changed

TABLE II

SCORES ON THE ITEM "DOCTOR'S DEGREES" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEAR 1945-46 REPORTED ON AN INSTITUTIONAL GROUP BASIS

| Percentile Rank | Scores of 48 Institutions Group 1 | Scores of 139 Institutions Group 2 | Scores of 66 Institutions Group 3 | Scores of 52 Institutions Group 4 |
|-----------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| 90 | 22.8 | 50.6 | 53.9 | 63.0 |
| 80 | 17.6 | 45.4 | 49.1 | 55.8 |
| 70 | 14.0 | 41.5 | 44.6 | 52.7 |
| 60 | 10.7 | 37.7 | 40.9 | 50.1 |
| 50 | 7.8 | 34.0 | 37.5 | 46.4 |
| 40 | 3.3 | 30.2 | 34.4 | 43.0 |
| 30 | 0 | 27.0 | 32.1 | 39.7 |
| 20 | 0 | 23.8 | 28.7 | 36.0 |
| 10 | 0 | 20.5 | 20.6 | 32.3 |

from 7.9 for the 1935-36 study to 11.0 for the 1945-46 study. This results from the fact that the increase in scores in the upper half of the distribution was greater than in the lower half of the distribution. In other words, the spread between the high and low ranking institutions in percentage of Doctor's degrees represented on the staff was greater in 1945-46 than it had been ten years earlier.

Table II reports by deciles the institutional scores on the item "Doctor's Degrees," the institutions grouped on the basis described above, for the year 1945-46. As would be expected, the Group 1 institutions, the junior colleges, have in general smaller percentages of Doctor's degrees represented on the staff than do the four-year col-

leges and universities. It is interesting, however, to observe that the high ranking junior colleges on this item compare favorably with the low ranking four-year colleges. Though the scores for the Group 4 institutions are in general considerably higher than those for Group 3 institutions, which are in turn somewhat higher than those for institutions in Group 2, there is considerable overlapping among the distributions. By way of illustration, 30 percent of the Group 2 institutions, those of simple, unitary organization and, with rare exceptions, offering only the Bachelor's degree, have higher percentages of Doctor's degrees than do the lowest 30 percent of the Group 4 institutions, all of which offer at least the Master's degree.

Master's Degrees.—In computing this measure, the number of persons holding the doctorate is first subtracted from the number on the teaching staff (the teaching staff to be used on this criterion has been defined above) thus eliminating any overlapping between these two measures. The percentage of the remaining staff members who hold a Master's degree as their highest earned degree is the measure for this criterion.

The *Revised Manual of Accrediting* states that the significance of this criterion will vary among institutions, being less in the institutions in which a relatively large percentage of the staff holds the doctorate. This is due to the fact that where the percentage of Doctor's degrees is relatively high the measure of the Master's degree is based on a relatively small proportion of the staff.

Table III shows the range of scores by deciles on the Master's degree measure. On the 1935-36 study the middle half of the scores extends from 61.8 to 79.0; on the later study the comparable section of scores lies between 69.8 and

84.9. Unlike the situation with respect to Doctor's degrees, there has been only a slight shift in the dispersion of the two sets of scores on this item, the quartile deviation for the earlier study being 8.6 and that for the later study being 7.6. The median score has shifted from 69.8 to 77.3—an increase of 7.5 points. In 80 percent of the institutions in

TABLE III

SCORES ON THE ITEM "MASTER'S DEGREES" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEARS 1935-36 AND 1945-46

| Percentile Rank | Scores of 276 Institutions 1935-36 | Scores of 305 Institutions 1945-46 | Change in Score |
|-----------------|------------------------------------|------------------------------------|-----------------|
| 90 | 85.1 | 93.1 | 8 |
| 80 | 80.3 | 87.4 | 7.1 |
| 70 | 76.2 | 83.4 | 7.2 |
| 60 | 72.7 | 80.4 | 7.7 |
| 50 | 69.8 | 77.3 | 7.5 |
| 40 | 66.5 | 74.3 | 6.8 |
| 30 | 63.2 | 71.4 | 8.2 |
| 20 | 59.1 | 66.4 | 7.3 |
| 10 | 54.1 | 61.2 | 7.1 |
| | | 84.9 | |
| 75 | 79.0 | | |
| 25 | 61.8 | 69.8 | |
| Q | 8.6 | 7.6 | |

1945-46 at least two-thirds of the faculty members, exclusive of those holding the doctorate, held Master's degrees. It is clear that as the trend toward requiring at least a Master's degree for college teaching continues this item becomes of decreasing importance as a means for differentiating among institutions with regard to faculty competence.

Table IV reports by deciles and on the group basis the scores on the item "Master's Degrees" for the year 1945-46. On this measure the junior colleges rank somewhat higher than the four-year colleges and universities.

Graduate Study.—In computing the measure known as Graduate Study only

TABLE IV

SCORES ON THE ITEM "MASTER'S DEGREES" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEAR 1945-46 REPORTED ON AN INSTITUTIONAL GROUP BASIS

| Percentile Rank | Scores of 48 Institutions Group 1 | Scores of 139 Institutions Group 2 | Scores of 66 Institutions Group 3 | Scores of 52 Institutions Group 4 |
|-----------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| 90 | 100 | 92.3 | 92.4 | 84.9 |
| 80 | 93.6 | 86.9 | 88.2 | 83.3 |
| 70 | 90.9 | 83.3 | 84.0 | 81.7 |
| 60 | 83.6 | 80.3 | 78.5 | 80.1 |
| 50 | 80.6 | 76.9 | 75.5 | 77.2 |
| 40 | 77.9 | 73.5 | 72.2 | 74.5 |
| 30 | 75.2 | 70.2 | 67.8 | 72.5 |
| 20 | 72.6 | 64.7 | 63.1 | 70.5 |
| 10 | 69.0 | 60.8 | 59.0 | 65.3 |

those staff members' reports which were used in the calculation of the scores on Doctor's and Master's degrees have been used. The average number of months of graduate study per teaching staff member (as described above) is the measure of this criterion.

On the measure of Graduate Study as shown in Table V it will be noted

TABLE V

SCORES ON THE ITEM "GRADUATE STUDY" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEARS 1935-36 AND 1945-46

| Percentile Rank | Scores of 276 Institutions 1935-36 | Scores of 305 Institutions 1945-46 | Change in Score |
|-----------------|------------------------------------|------------------------------------|-----------------|
| 90 | 27.8 | 33.5 | 5.7 |
| 80 | 25.7 | 30.6 | 4.9 |
| 70 | 24.1 | 29.0 | 4.9 |
| 60 | 22.4 | 27.7 | 5.3 |
| 50 | 21.0 | 26.4 | 5.4 |
| 40 | 19.8 | 25.1 | 5.3 |
| 30 | 18.6 | 23.6 | 5.0 |
| 20 | 16.9 | 21.8 | 4.9 |
| 10 | 14.8 | 19.1 | 4.3 |
| 75 | 24.9 | 29.7 | |
| 25 | 17.6 | 22.7 | |
| Q | 3.7 | 3.5 | |

that on the earlier study the middle half of the scores lie between 17.6 and 24.9, while on the more recent study the similar grouping of scores extends from 22.7 to 29.7. The dispersion of scores on this measure has changed very little; the quartile deviation on the earlier study is 3.7 while on the more recent study the quartile deviation is

TABLE VI

SCORES ON THE ITEM "GRADUATE STUDY" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEAR 1945-46 REPORTED ON AN INSTITUTIONAL GROUP BASIS

| Percentile Rank | Scores of 48 Institutions Group 1 | Scores of 139 Institutions Group 2 | Scores of 66 Institutions Group 3 | Scores of 52 Institutions Group 4 |
|-----------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| 90 | 27.9 | 32.7 | 34.5 | 38.7 |
| 80 | 23.5 | 30.5 | 31.8 | 32.8 |
| 70 | 21.9 | 29.2 | 29.6 | 30.6 |
| 60 | 20.6 | 28.1 | 28.2 | 29.2 |
| 50 | 19.6 | 27.0 | 26.8 | 28.2 |
| 40 | 18.6 | 25.8 | 25.6 | 27.2 |
| 30 | 17.0 | 24.7 | 24.3 | 26.0 |
| 20 | 14.5 | 23.3 | 23.0 | 24.8 |
| 10 | 12.7 | 21.3 | 21.6 | 23.1 |

3.5. The median score has increased from 21.0 to 26.4—an increase of 5.4 months. It is apparent that in terms of number of months of graduate study the faculties of member colleges and universities were, in general, stronger at the end of the decade than they had been at the beginning. A score on this item which in 1935-36 would have placed an institution at the median would in 1945-46 have placed it between the 10th and 20th percentiles.

Table VI reports on an institutional group basis the scores on the item "Graduate Study" for the year 1945-46. As would be expected, the junior colleges (Group 1) in general rank considerably lower than the institutions in the other groups.

Graduate Training in Teaching Sub-

ject.—This criterion refers to the extent to which teaching staff members have had graduate preparation in the subjects which they teach. The measure used is the percentage of the teaching staff who have completed as much as a graduate major in the subject in which they are teaching. The *Revised Manual of Accrediting* states: "A superior insti-

TABLE VII

SCORES ON THE ITEM "GRADUATE TRAINING IN TEACHING SUBJECT" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEARS 1935-36 AND 1945-46

| Percentile Rank | Scores of 276 Institutions 1935-36 | Scores of 305 Institutions 1945-46 | Change in Score |
|-----------------|------------------------------------|------------------------------------|-----------------|
| 90 | 91.1 | 96.7 | 5.6 |
| 80 | 85.9 | 94.3 | 8.4 |
| 70 | 83.2 | 92.5 | 9.3 |
| 60 | 81.1 | 90.7 | 9.6 |
| 50 | 78.4 | 88.5 | 10.1 |
| 40 | 75.2 | 85.9 | 10.7 |
| 30 | 71.7 | 82.6 | 10.9 |
| 20 | 67.7 | 78.5 | 10.8 |
| 10 | 62.5 | 74.0 | 11.5 |
| 75 | 84.4 | 93.4 | |
| 25 | 68.9 | 80.6 | |
| Q | 7.8 | 6.4 | |

tution has a faculty in which all teaching staff members have adequate training in the field of their instructional duties. An unsatisfactory faculty, as measured by the criterion, is one in which there is little or no relationship between graduate training and instructional duties."

Table VII shows the scores by deciles for the measure "Graduate Training in Teaching Subject." The middle 50 percent of the scores for the 1935-36 study lies between 68.9 and 84.4; in the 1945-46 study, between 80.6 and 93.4. The median score increased 10.1 points—from 78.4 to 88.5. It will be noted that the increase in the scores

has greater been at the lower deciles than at the higher deciles. Thus the dispersion of the scores has decreased during the ten-year period. (The quartile deviation was reduced from 7.8 to 6.4.) If this tendency for staff members to teach in their field of major concentration continues, this particular measure, like the item "Master's Degrees,"

TABLE VIII

SCORES ON THE ITEM "GRADUATE TRAINING IN TEACHING SUBJECT" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEAR 1945-46 REPORTED ON AN INSTITUTIONAL GROUP BASIS

| Percentile Rank | Scores of 48 Institutions Group 1 | Scores of 139 Institutions Group 2 | Scores of 66 Institutions Group 3 | Scores of 52 Institutions Group 4 |
|-----------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| 90 | 100 | 96.0 | 96.8 | 96.9 |
| 80 | 93.6 | 94.0 | 94.6 | 95.0 |
| 70 | 90.7 | 91.9 | 93.0 | 93.4 |
| 60 | 87.1 | 89.5 | 91.6 | 92.3 |
| 50 | 83.5 | 86.7 | 89.9 | 91.2 |
| 40 | 79.9 | 84.1 | 88.1 | 89.7 |
| 30 | 77.5 | 81.5 | 85.7 | 88.2 |
| 20 | 73.9 | 77.3 | 81.1 | 86.3 |
| 10 | 66.8 | 73.8 | 77.2 | 81.2 |

will become less significant as an indicator of relative faculty competence.

Table VIII presents the scores on the item "Graduate Training in Teaching Subject" by institutional groups for the year 1945-46.

Educational Experience.—The measure of this criterion is the average number of years per teaching staff member of experience in teaching or administrative work in institutions of higher education. This statement appears in the *Revised Manual of Accrediting*: "It is not assumed that institutional excellence increases coincidentally with the average years of experience of the teaching staff. However, an abnormally high average or distribution or an abnormally low average or distribution on this criterion will be cause for investi-

gation of the situation in a particular institution."

Table IX gives the scores by deciles on the measure "Educational Experience" for the years 1935-36 and 1945-46. The median changed from 12.1 to 13.8—an increase of 1.7. The middle 50 percent of the scores on the earlier study ranges from 9.7 to 14.6; on the

TABLE IX

SCORES ON THE ITEM "EDUCATIONAL EXPERIENCE" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEARS 1935-36 AND 1945-46

| Percentile Rank | Scores of 276 Institutions 1935-36 | Scores of 307 Institutions 1945-46 | Change of Score |
|-----------------|------------------------------------|------------------------------------|-----------------|
| 90 | 15.9 | 17.8 | 1.9 |
| 80 | 14.9 | 16.6 | 1.7 |
| 70 | 14.0 | 15.6 | 1.6 |
| 60 | 13.1 | 14.7 | 1.6 |
| 50 | 12.1 | 13.8 | 1.7 |
| 40 | 11.2 | 12.9 | 1.7 |
| 30 | 10.3 | 12.1 | 1.8 |
| 20 | 8.8 | 10.9 | 2.1 |
| 10 | 7.5 | 9.4 | 1.9 |
| 75 | 14.6 | 16.1 | |
| 25 | 9.7 | 11.5 | |
| Q | 2.5 | 2.3 | |

later study, from 11.5 to 16.1. The dispersion of the two groups of scores is practically identical; the quartile deviation for this measure was 2.5 in the 1935-36 study and 2.3 in the 1945-46 study. The average number of years of educational experience at the higher education level appears to have increased rather uniformly throughout the entire range of institutional scores.

Table X presents by institutional groups the scores on the item "Educational Experience" for the year 1945-46.

Publications: Books.—The measure of this criterion is the average number of scholarly books and monographs

TABLE X
SCORES ON THE ITEM "EDUCATIONAL EXPERIENCE" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEAR 1945-46 REPORTED ON AN INSTITUTIONAL GROUP BASIS

| Percentile Rank | Scores of 48 Institutions Group 1 | Scores of 139 Institutions Group 2 | Scores of 68 Institutions Group 3 | Scores of 52 Institutions Group 4 |
|-----------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| 90 | 15.8 | 18.0 | 17.8 | 17.8 |
| 80 | 14.8 | 16.9 | 16.9 | 16.9 |
| 70 | 13.8 | 15.7 | 16.0 | 16.1 |
| 60 | 12.9 | 14.7 | 15.2 | 15.4 |
| 50 | 12.0 | 13.6 | 14.4 | 14.8 |
| 40 | 10.6 | 12.6 | 13.6 | 14.1 |
| 30 | 9.4 | 11.6 | 12.8 | 13.4 |
| 20 | 8.4 | 10.6 | 12.1 | 12.7 |
| 10 | 7.1 | 9.3 | 11.0 | 12.0 |

produced per teaching staff member in an institution during a five-year period. Manuscripts accepted for publication but not yet printed are included.

Table XI gives the scores by deciles on the measure known as "Publications—Books" for the two studies conducted in 1935-36 and 1945-46. Of those discussed up to this point, this

TABLE XI
SCORES ON THE ITEM "PUBLICATIONS—BOOKS" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEARS 1935-36 AND 1945-46

| Percentile Rank | Scores of 276 Institutions 1935-36 | Scores of 307 Institutions 1945-46 | Change in Score |
|-----------------|------------------------------------|------------------------------------|-----------------|
| 90 | .72 | .60 | -.12 |
| 80 | .59 | .47 | -.12 |
| 70 | .46 | .37 | -.09 |
| 60 | .36 | .30 | -.06 |
| 50 | .28 | .25 | -.03 |
| 40 | .24 | .20 | -.04 |
| 30 | .18 | .14 | -.04 |
| 20 | .12 | .08 | -.04 |
| 10 | .06 | .01 | -.05 |
| 75 | .51 | .40 | |
| 25 | .15 | .11 | |
| Q | .18 | .15 | |

is the first measure which shows a decrease throughout the scale. The decreases at the higher deciles are greater than those at the lower deciles. The middle half of the scores on the earlier study extends from .15 to .51 while on the more recent study the middle 50 percent of the scores on this measure of publications of books lies between .11 and .40.

TABLE XII
SCORES ON THE ITEM "PUBLICATIONS—BOOKS" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEAR 1945-46 REPORTED ON AN INSTITUTIONAL GROUP BASIS

| Percentile Rank | Scores of 48 Institutions Group 1 | Scores of 139 Institutions Group 2 | Scores of 68 Institutions Group 3 | Scores of 52 Institutions Group 4 |
|-----------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| 90 | .46 | .56 | .81 | .96 |
| 80 | .24 | .38 | .48 | .62 |
| 70 | .14 | .31 | .36 | .51 |
| 60 | .08 | .27 | .30 | .47 |
| 50 | .05 | .23 | .25 | .43 |
| 40 | .01 | .19 | .21 | .40 |
| 30 | 0 | .15 | .16 | .35 |
| 20 | 0 | .11 | .12 | .30 |
| 10 | 0 | .04 | .06 | .22 |

This decline in faculty productivity is not surprising when one considers both the difficulties of publishing during the war years and the heavy teaching loads carried by many college instructors, during that same period. Furthermore, many of our most productive scholars were at that time devoting all their energies to the prosecution of the war effort.

Table XII presents the scores on the item "Publications—Books" for 1945-46 by institutional groups. Since Group 4 includes the larger universities, it is to be expected that the scores for that group would in general be higher than the scores for the other groups of institutions, especially those in Groups 1 and 2, which are primarily teaching institutions.

Publications: Articles.—The measure of this criterion is the average number of scholarly articles produced per teaching staff member in an institution during a five-year period. Manuscripts accepted for publication but not yet printed are included.

In contrast with the decrease in the average number of books discussed in

The score on publications of articles at the 50th percentile was raised from .98 in 1935-36 to 1.19 in 1945-46—an increase of .21 of a point. The differences among institutions on this particular measure became greater during the decade under consideration. This is indicated by the fact that the quartile deviation changed from .68 in the 1935-

TABLE XIII

SCORES ON THE ITEM "PUBLICATIONS—ARTICLES" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEARS 1935-36 AND 1945-46

| Percentile Rank | Scores of 276 Institutions 1935-36 | Scores of 306 Institutions 1945-46 | Change in Score |
|-----------------|------------------------------------|------------------------------------|-----------------|
| 90 | 3.26 | 3.59 | .33 |
| 80 | 2.16 | 2.61 | .45 |
| 70 | 1.63 | 1.83 | .20 |
| 60 | 1.35 | 1.43 | .08 |
| 50 | .98 | 1.19 | .21 |
| 40 | .70 | .94 | .24 |
| 30 | .59 | .71 | .12 |
| 20 | .42 | .47 | .05 |
| 10 | .23 | .19 | -.04 |
| 75 | 1.85 | 2.11 | |
| 25 | .49 | .59 | |
| Q | .68 | .76 | |

the previous section, it is interesting to note that the average number of articles produced by faculty members during the five-year period prior to 1945-46 showed some increase over the institutional scores computed for the same measure on data collected in 1935-36 (see Table XIII). The reason is probably found, at least in part, in the fact that large numbers of articles relating to current problems growing out of war-time conditions were written. Scholarly books and monographs, on the other hand, usually result from the kind of extended study and careful research for which there was little time or opportunity during the hectic years of the war.

TABLE XIV

SCORES ON THE ITEM "PUBLICATIONS—ARTICLES" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEAR 1945-46 REPORTED ON AN INSTITUTIONAL GROUP BASIS

| Percentile Rank | Scores of 48 Institutions Group 1 | Scores of 139 Institutions Group 2 | Scores of 67 Institutions Group 3 | Scores of 52 Institutions Group 4 |
|-----------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| 90 | 1.92 | 2.44 | 3.29 | 4.95 |
| 80 | 1.20 | 1.74 | 2.45 | 3.98 |
| 70 | .69 | 1.40 | 1.81 | 3.69 |
| 60 | .45 | 1.22 | 1.45 | 3.37 |
| 50 | .34 | 1.03 | 1.26 | 3.00 |
| 40 | .23 | .86 | 1.08 | 2.68 |
| 30 | .12 | .68 | .89 | 2.20 |
| 20 | .02 | .51 | .71 | 1.78 |
| 10 | 0 | .31 | .52 | 1.42 |

36 study to .76 in the 1945-46 study.

In Table XIV are shown the scores on the item "Publications—Articles" by institutional groups for the year 1945-46. It is to be expected that in publication of articles, as in publication of books, the staffs of the Group 4 institutions would in general be more active than the staffs of institutions in the other groups. In this, as in other measures, there is, however, considerable overlapping among groups.

Learned Societies: Memberships.—The measure of this criterion is the average number of memberships in national learned societies held per teaching staff member in an institution. In reporting on this measure each staff member checked his membership

against a definitive list which appeared on the individual faculty report form.¹

Table XV shows institutional scores by deciles on the measure of membership in learned societies for the two

TABLE XV

SCORES ON THE ITEM "LEARNED SOCIETIES—MEMBERSHIPS" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEARS 1935-36 AND 1945-46

| Percentile Rank | Scores of 276 Institutions 1935-36 | Scores of 307 Institutions 1945-46 | Change in Score |
|-----------------|------------------------------------|------------------------------------|-----------------|
| 90 | 1.96 | 2.77 | .81 |
| 80 | 1.71 | 2.46 | .75 |
| 70 | 1.51 | 2.21 | .70 |
| 60 | 1.36 | 2.06 | .70 |
| 50 | 1.27 | 1.87 | .60 |
| 40 | 1.15 | 1.67 | .52 |
| 30 | 1.04 | 1.49 | .45 |
| 20 | .88 | 1.30 | .42 |
| 10 | .67 | 1.09 | .42 |
| 75 | 1.59 | 2.34 | |
| 25 | .97 | 1.40 | |
| Q | .31 | .47 | |

TABLE XVI

SCORES ON THE ITEM "LEARNED SOCIETIES—MEMBERSHIPS" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEAR 1945-46 REPORTED ON AN INSTITUTIONAL GROUP BASIS

| Percentile Rank | Scores of 48 Institutions Group 1 | Scores of 139 Institutions Group 2 | Scores of 68 Institutions Group 3 | Scores of 52 Institutions Group 4 |
|-----------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| 90 | 2.44 | 2.67 | 2.91 | 2.88 |
| 80 | 2.09 | 2.30 | 2.51 | 2.67 |
| 70 | 1.71 | 2.10 | 2.26 | 2.55 |
| 60 | 1.44 | 1.93 | 2.13 | 2.46 |
| 50 | 1.30 | 1.75 | 2.03 | 2.33 |
| 40 | 1.18 | 1.61 | 1.89 | 2.17 |
| 30 | 1.08 | 1.45 | 1.70 | 2.02 |
| 20 | .94 | 1.29 | 1.51 | 1.77 |
| 10 | .76 | 1.12 | 1.35 | 1.48 |

¹ Development of the checklist of learned societies is described in the NORTH CENTRAL ASSOCIATION QUARTERLY, XXI (July 1946), 59-62.

years 1935-36 and 1945-46. An increase at all deciles is to be noted with greater increases appearing at the upper deciles. Thus, the dispersion of the scores on the more recent study is greater than that of the earlier study. At the median the score increased from 1.27 to 1.87—a change of .60 of a point.

TABLE XVII

SCORES ON THE ITEM "LEARNED SOCIETIES—MEETINGS" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEARS 1935-36 AND 1945-46

| Percentile Rank | Scores of 276 Institutions 1935-36 | Scores of 307 Institutions 1945-46 | Change in Score |
|-----------------|------------------------------------|------------------------------------|-----------------|
| 90 | 1.16 | 1.44 | .28 |
| 80 | 1.02 | 1.20 | .18 |
| 70 | .87 | 1.08 | .21 |
| 60 | .79 | .94 | .15 |
| 50 | .70 | .79 | .09 |
| 40 | .60 | .68 | .08 |
| 30 | .52 | .56 | .04 |
| 20 | .39 | .44 | .05 |
| 10 | .28 | .28 | 0 |
| 75 | .96 | 1.14 | |
| 25 | .46 | .50 | |
| Q | .25 | .32 | |

The scores by institutional groups on the item "Learned Societies—Memberships" for the year 1945-46 are reported in Table XVI.

Learned Societies: Meetings.—The measure of this criterion is the average number of meetings of national learned societies attended per teaching staff member over a five-year period.

The scores by deciles for the measure of the criterion "Learned Societies—Meetings" appear in Table XVII. In view of the restrictions on wartime travel and the cancellation during the war period of many meetings, it is rather surprising to discover that member institutions had in general higher scores on this item in 1945-46 than in

1935-36. The increase at the median is .09, and is considerably greater than this at the deciles above the median. Thus, as was true in the case of memberships in learned societies, the dispersion in scores as measured by the quartile deviation was greater in 1945-46 than in 1935-36.

The scores by institutional groups on the item "Learned Societies—Meetings" are reported in Table XVIII.

TABLE XVIII

SCORES ON THE ITEM "LEARNED SOCIETIES—MEETINGS" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEAR 1945-46 REPORTED ON AN INSTITUTIONAL GROUP BASIS

| Percentile Rank | Scores of 48 Institutions Group 1 | Scores of 139 Institutions Group 2 | Scores of 68 Institutions Group 3 | Scores of 52 Institutions Group 4 |
|-----------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| 90 | 1.22 | 1.33 | 1.51 | 1.64 |
| 80 | .84 | 1.11 | 1.31 | 1.37 |
| 70 | .70 | .97 | 1.17 | 1.27 |
| 60 | .60 | .84 | 1.08 | 1.17 |
| 50 | .50 | .73 | .97 | 1.08 |
| 40 | .40 | .63 | .77 | 1.00 |
| 30 | .30 | .52 | .67 | .89 |
| 20 | .19 | .41 | .55 | .78 |
| 10 | .10 | .30 | .42 | .63 |

Learned Societies: Programs.—The measure of this criterion is the average number of places on the programs of national learned societies held per teaching staff member over a five-year period.

Table XIX gives the institutional scores by deciles on the measure of learned societies program participation for the two years 1935-36 and 1945-46. The pattern of scores on this item is the same as on the other two items relating to learned society activities, that is, the scores were in general higher in 1945-46 than they had been a decade earlier, and the increases at the higher deciles are greater than at the lower deciles. It is clear that during the

TABLE XIX

SCORES ON THE ITEM "LEARNED SOCIETIES—PROGRAMS" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEARS 1935-36 AND 1945-46

| Percentile Rank | Scores of 276 Institutions 1935-36 | Scores of 307 Institutions 1945-46 | Change in Score |
|-----------------|------------------------------------|------------------------------------|-----------------|
| 90 | .34 | .40 | .06 |
| 80 | .24 | .29 | .05 |
| 70 | .17 | .24 | .07 |
| 60 | .13 | .18 | .05 |
| 50 | .10 | .13 | .03 |
| 40 | .08 | .10 | .02 |
| 30 | .05 | .07 | .02 |
| 20 | .03 | .05 | .02 |
| 10 | 0 | 0 | 0 |
| 75 | .19 | .26 | |
| 25 | .04 | .06 | |
| Q | .08 | .10 | |

period under consideration increased attention was given by institutional staff members to learned society activities, and, to the extent that such activities contribute to professional competence, the faculties of the member institutions were strengthened.

Table XX presents the scores on the item "Learned Societies—Programs"

TABLE XX

SCORES ON THE ITEM "LEARNED SOCIETIES—PROGRAMS" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEAR 1945-46 REPORTED ON AN INSTITUTIONAL GROUP BASIS

| Percentile Rank | Scores of 48 Institutions Group 1 | Scores of 139 Institutions Group 2 | Scores of 68 Institutions Group 3 | Scores of 52 Institutions Group 4 |
|-----------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| 90 | .18 | .29 | .36 | .70 |
| 80 | .12 | .23 | .28 | .62 |
| 70 | .10 | .17 | .25 | .47 |
| 60 | .08 | .14 | .22 | .38 |
| 50 | .07 | .11 | .17 | .33 |
| 40 | .06 | .08 | .13 | .30 |
| 30 | 0 | .06 | .09 | .26 |
| 20 | 0 | .04 | .06 | .21 |
| 10 | 0 | 0 | .03 | .14 |

by institutional groups for the year 1945-46. It is to be expected that the institutions of more complex organization—those which in general would be characterized by a larger degree of specialization and in which would be found programs of advanced or professional study—would in general be those in which would be found the larger measure of interest in learned society activities. Examination of Tables XVI, XVIII, and XX indicates that this is the case. On each of the three measures relating to learned societies the scores in general become high as one moves from Group 1 to Group 4.

CONDITIONS OF FACULTY SERVICE

In the area of "Conditions of Faculty Service" there are five criteria on which objective scores have been developed. Three of these criteria relate to salaries; the other two are "Teaching Load" and "Aids to Growth."

Salaries.—Three salary measures are given equal weighting in developing a combined score on salary. They are the median instructional salary, the maximum instructional salary, and the median administrative salary. Persons holding the following or similar positions are defined as administrative officers: president, vice-president, assistant to the president, academic dean, student personnel officer, business officer, librarian and assistant librarians, registrar and assistant registrars, and extension director and assistant directors. The salaries of persons holding such positions are included in administrative salaries, rather than instructional salaries, regardless of whether or not they teach. All salaries are reduced to a full-time nine-month basis, and only those individuals are included in the salary measures who are on a 100 percent appointment basis. Data relating to these three measures appear

in Tables XXI-XXVI; these scores are reported in dollars.

Table XXI shows the scores by deciles for the measure "Median Instructional Salary" for both 1935-36 and 1945-46. The median score changed from 1925 to 2684—an increase of \$759. The extent of the change in the salary situation during the decade is

TABLE XXI

SCORES ON THE ITEM "MEDIAN INSTRUCTIONAL SALARY" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEARS 1935-36 AND 1945-46

| Percentile Rank | Scores of 228 Institutions 1935-36 | Scores of 257 Institutions 1945-46 | Change in Score |
|-----------------|------------------------------------|------------------------------------|-----------------|
| 90 | 2525 | 3356 | 831 |
| 80 | 2317 | 3131 | 814 |
| 70 | 2117 | 2987 | 870 |
| 60 | 2025 | 2826 | 801 |
| 50 | 1925 | 2684 | 759 |
| 40 | 1790 | 2542 | 752 |
| 30 | 1688 | 2392 | 704 |
| 20 | 1517 | 2180 | 663 |
| 10 | 1350 | 1970 | 620 |
| 75 | 2200 | 3060 | |
| 25 | 1600 | 2285 | |
| Q | 300 | 388 | |

emphasized by the fact that the median instructional salary which would have placed an institution at the 50th percentile in 1935-36 would have placed it below the 10th percentile in 1945-46.

It will be noted that the increases at the higher deciles are greater than at the lower deciles, and for this reason there is a slightly wider range in the 1945-46 scores. The quartile deviation has increased from 300 to 388.

This greater dispersion of salaries in 1945-46 as compared with 1935-36 may suggest, at least in some respects, a weakening of the position of the institutions at the lower salary levels in competing for staff members.

Table XXII presents the scores on the item "Median Instructional Salary" by institutional groups for the year 1945-46. In general the Group 2 institutions report the lowest median instructional salaries and the Group 4 institutions, the highest. There is, however, considerable overlapping among the groups. For example, the median

TABLE XXII

SCORES ON THE ITEM "MEDIAN INSTRUCTIONAL SALARY" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEAR 1945-46 REPORTED ON AN INSTITUTIONAL GROUP BASIS

| Percentile Rank | Scores of 45 Institutions Group 1 | Scores of 105 Institutions Group 2 | Scores of 63 Institutions Group 3 | Scores of 44 Institutions Group 4 |
|-----------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| 90 | 3610 | 3175 | 3306 | 4024 |
| 80 | 3250 | 3000 | 3113 | 3310 |
| 70 | 3060 | 2860 | 2928 | 3166 |
| 60 | 2800 | 2708 | 2778 | 3098 |
| 50 | 2620 | 2559 | 2664 | 3031 |
| 40 | 2350 | 2435 | 2549 | 2920 |
| 30 | 2150 | 2285 | 2435 | 2780 |
| 20 | 2000 | 2117 | 2224 | 2670 |
| 10 | 1888 | 1922 | 2037 | 2520 |

instructional salary in the highest 30 percent of the Group 2 institutions exceeds that of the lowest 30 percent of the Group 4 institutions.

Table XXIII shows the scores by deciles for the measure "Maximum Instructional Salary" for the two years 1935-36 and 1945-46. As would be expected, the scores on this measure increased even more than have those for median instructional salary. Approximately the same kind of shift in scores is apparent on this second salary measure as appeared on the first one, that is, the greater increases took place at the higher deciles. The median score for this measure has from 2733 to 3583—a positive change of \$850.

In Table XXIV are shown the scores on the item "Maximum Instructional

TABLE XXIII

SCORES ON THE ITEM "MAXIMUM INSTRUCTIONAL SALARY" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEARS 1935-36 AND 1945-46

| Percentile Rank | Scores of 228 Institutions 1935-36 | Scores of 257 Institutions 1945-46 | Change in Score |
|-----------------|------------------------------------|------------------------------------|-----------------|
| 90 | 4700 | 5622 | 922 |
| 80 | 3700 | 4395 | 695 |
| 70 | 3225 | 4066 | 841 |
| 60 | 2983 | 3786 | 803 |
| 50 | 2733 | 3583 | 850 |
| 40 | 2533 | 3293 | 760 |
| 30 | 2283 | 3051 | 768 |
| 20 | 2075 | 2834 | 759 |
| 10 | 1825 | 2560 | 735 |
| 75 | 3450 | 4227 | |
| 25 | 2200 | 2949 | |
| Q | 625 | 639 | |

Salary" by groups for the year 1945-46. On this measure the Group 1 institutions have the lowest level of scores.

Table XXV gives scores by deciles for the measure "Median Administrative Salary" for the years 1935-36 and 1945-46. As was true of the other two salary measures, the scores on this item were appreciably higher at the end of

TABLE XXIV

SCORES ON THE ITEM "MAXIMUM INSTRUCTIONAL SALARY" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEAR 1945-46 REPORTED ON AN INSTITUTIONAL GROUP BASIS

| Percentile Rank | Scores of 45 Institutions Group 1 | Scores of 105 Institutions Group 2 | Scores of 63 Institutions Group 3 | Scores of 44 Institutions Group 4 |
|-----------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| 90 | 3993 | 4464 | 4910 | 8260 |
| 80 | 3800 | 4067 | 4265 | 7430 |
| 70 | 3470 | 3758 | 4019 | 6380 |
| 60 | 3200 | 3583 | 3770 | 6005 |
| 50 | 3088 | 3294 | 3612 | 5150 |
| 40 | 2975 | 3040 | 3432 | 4595 |
| 30 | 2810 | 2848 | 3197 | 4310 |
| 20 | 2500 | 2690 | 3025 | 4085 |
| 10 | 2150 | 2488 | 2798 | 3755 |

the decade than they were at the beginning, and in general the increases were greater at the higher deciles. On this, as on the other salary measures, there was a wider spread among institutions in 1945-46 than in 1935-36.

Table XXVI presents the scores on the item "Median Administrative Sal-

ary" by institutional groups for the year 1945-46. The Group 2 institutions on this measure, as on the median instructional salary measure, have the lowest level of scores of any of the four groups. As would be expected, the Group 4 institutions pay considerably higher administrative salaries in gener-

TABLE XXV

SCORES ON THE ITEM "MEDIAN ADMINISTRATIVE SALARY" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEARS 1935-36 AND 1945-46

| Percentile Rank | Scores of 228 Institutions 1935-36 | Scores of 257 Institutions 1945-46 | Change in Score |
|-----------------|------------------------------------|------------------------------------|-----------------|
| 90 | 3050 | 4021 | 971 |
| 80 | 2650 | 3629 | 979 |
| 70 | 2367 | 3359 | 992 |
| 60 | 2233 | 3132 | 899 |
| 50 | 2088 | 2952 | 864 |
| 40 | 1960 | 2729 | 769 |
| 30 | 1813 | 2519 | 706 |
| 20 | 1650 | 2344 | 694 |
| 10 | 1500 | 2086 | 586 |
| 75 | 2475 | 3488 | |
| 25 | 1750 | 2431 | |
| Q | 363 | 529 | |

TABLE XXVI

SCORES ON THE ITEM "MEDIAN ADMINISTRATIVE SALARY" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEAR 1945-46 REPORTED ON AN INSTITUTIONAL GROUP BASIS

| Percentile Rank | Scores of 45 Institutions Group 1 | Scores of 105 Institutions Group 2 | Scores of 63 Institutions Group 3 | Scores of 44 Institutions Group 4 |
|-----------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| 90 | 3762 | 3575 | 3852 | 4820 |
| 80 | 3457 | 3260 | 3613 | 4560 |
| 70 | 3264 | 3050 | 3376 | 4310 |
| 60 | 3087 | 2850 | 3134 | 4020 |
| 50 | 2919 | 2594 | 2945 | 3800 |
| 40 | 2700 | 2473 | 2756 | 3480 |
| 30 | 2493 | 2352 | 2570 | 3260 |
| 20 | 2300 | 2205 | 2398 | 3080 |
| 10 | 2030 | 2030 | 2098 | 2915 |

TABLE XXVII

SCORES ON THE ITEM "TEACHING LOAD" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEARS 1935-36 AND 1945-46

| Percentile Rank | Scores of 276 Institutions 1935-36 | Scores of 289 Institutions 1945-46 | Change in Score* |
|-----------------|------------------------------------|------------------------------------|------------------|
| 90 | 13.7 | 15.1 | -1.4 |
| 80 | 15.0 | 15.8 | -.8 |
| 70 | 15.7 | 16.5 | -.8 |
| 60 | 16.4 | 17.1 | -.7 |
| 50 | 16.9 | 17.6 | -.7 |
| 40 | 17.4 | 18.1 | -.7 |
| 30 | 17.9 | 18.8 | -.9 |
| 20 | 18.9 | 19.7 | -.8 |
| 10 | 20.1 | 20.9 | -.8 |
| 75 | 15.3 | 16.1 | |
| 25 | 18.4 | 19.2 | |
| Q | 1.6 | 1.6 | |

*Negative sign indicates an adverse change.

al than do the institutions in the other three groups.

Teaching Load.—The measure of this criterion is the average number of clock-hours (approximately fifty minutes) devoted to instructional activities per teaching staff member per week. Teachers of correspondence or extension work or critics or supervisors of student teaching are not included in computing this measure. Persons devoting less than 90 percent of the time given to the institution to instructional duties are also excluded. Table XXVII shows scores by deciles on the item "Teaching Load" for the two years 1935-36 and 1945-46.

Because the smaller average teach-

ing load is indicative of a more satisfactory condition of faculty service, the scores, it will be noted, have been arranged in an inverse position on the scale. While the scores all increased in actual size during the decade from 1935-36 to 1945-46 the changes in scores have been shown in Table XXVII with a negative sign in order to indicate that the increase represents an adverse change.

The change in score between the two years has been uniform throughout the range. The dispersion of the scores for the two years is identical; the quartile deviation for both sets of scores on this item is 1.6. The score at the median increased from 16.9 to 17.6. On this item for the 1935-36 study the middle 50 percent of the scores lies between 18.4 and 15.3; the comparable section of scores for the more recent study lies between 19.2 and 16.1. While the increase in teaching load in member institutions report in Table XXVII is small, it may suggest a trend which, if it were to continue, could become a cause for concern.

Table XXVIII shows the scores by institutional groups on the item "Teaching Load." It appears that the scores on this measure are in general somewhat higher for the Group 1 institutions than for the other institutions. One would expect to find relatively light teaching loads in the Group 4 institutions in comparison with the other groups, since, as was pointed out above, there is in general greater attention given to productive scholarship in such institutions. This, however, does not appear to be the case. Though the scores for the Group 4 institutions tend to be lower in general than those for Groups 1 and 3, they correspond closely to, and at the higher deciles are very slightly higher than, the Group 2 scores.

Aids to growth.—In addition to such fundamental conditions necessary to

TABLE XXVIII

SCORES ON THE ITEM "TEACHING LOAD" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEAR 1945-46 REPORTED ON AN INSTITUTIONAL GROUP BASIS

| Percentile Rank | Scores of 36 Institutions Group 1 | Scores of 136 Institutions Group 2 | Scores of 65 Institutions Group 3 | Scores of 52 Institutions Group 4 |
|-----------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| 90 | 15.5 | 14.5 | 16.1 | 15.1 |
| 80 | 16.6 | 15.4 | 16.7 | 15.6 |
| 70 | 17.3 | 16.0 | 17.2 | 16.2 |
| 60 | 17.8 | 16.6 | 17.6 | 16.7 |
| 50 | 19.0 | 17.3 | 18.0 | 17.2 |
| 40 | 19.9 | 17.9 | 18.4 | 17.6 |
| 30 | 20.4 | 18.8 | 18.9 | 18.0 |
| 20 | 20.9 | 19.7 | 19.8 | 18.5 |
| 10 | 22.8 | 20.8 | 22.1 | 19.0 |

faculty growth as salary and other provisions for economic welfare, security of tenure, freedom of teaching and research, and reasonable instructional load, certain other means are employed as supplementary aids to the professional growth of the faculty. The following list of aids was used in securing data relative to this criterion in the 1945-46 faculty study; with but few unimportant exceptions the same list was employed in the 1935-36 study.

1. Traveling expenses in whole or in part for attendance at professional meetings.
2. Reduction of teaching or service load below normal for a semester or year, without reduction of salary, for productive scholarship.
3. Acquisition by the library of requested books or periodicals relating specifically to the teacher's field of teaching or research.
4. Acquisition by the institution of requested laboratory facilities relating specifically to the teacher's field of teaching or research.
5. Provision of special instructional facilities for demonstrations and visual aids.
6. Library provision of books and periodicals relating specifically to college education.
7. Personal conference with head of department or dean or president regarding problems.
8. Observation of the teaching of other instructors.
9. Observation of the faculty member's teaching by other faculty members, head of de-

partment, dean or president, with conference thereafter.

10. Organized institutional effort to improve examination procedure by use of objective tests, comprehensive examinations, final course examinations, etc.

11. Studies of student achievement and attitudes using such aids as standardized tests and inventories.

12. Individual or group research into instructional or student personnel problems.

13. Faculty or group organization for study of

average number of such aids experienced per teaching staff member over a five-year period. The *Revised Manual of Accrediting* states: "It is not assumed that these aids are equally valuable or equally usable in all situations. The list merely enumerates the prevailing methods by which institutions seek to stimulate the improvement of their faculties."

TABLE XXIX

SCORES ON THE ITEM "AIDS TO GROWTH" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEARS 1935-36 AND 1945-46

| Percentile Rank | Scores of 276 Institutions 1935-36 | Scores of 307 Institutions 1945-46 | Change in Score |
|-----------------|------------------------------------|------------------------------------|-----------------|
| 90 | 8.4 | 11.0 | 2.6 |
| 80 | 7.2 | 9.6 | 2.4 |
| 70 | 6.3 | 8.6 | 2.3 |
| 60 | 5.6 | 7.8 | 2.2 |
| 50 | 5.2 | 7.2 | 2.0 |
| 40 | 4.6 | 6.6 | 2.0 |
| 30 | 3.9 | 6.1 | 2.2 |
| 20 | 3.3 | 5.5 | 2.2 |
| 10 | 2.8 | 4.9 | 2.1 |
| 75 | 6.9 | 9.0 | |
| 25 | 3.7 | 5.8 | |
| Q | 1.6 | 1.6 | |

college and related educational problems.

14. Counsel of specialists invited from outside the institution.

15. Systematic collection of student opinion regarding the improvement of the institution.

16. Systematic collection of alumni opinion regarding the improvement of the institution.

17. Systematic collection of faculty opinion regarding the improvement of the institution.

18. Sabbatical leave with stipend.

19. Leave other than sabbatical with or without stipend.

20. Financial aid for continued study (e.g., summer study, workshops, etc.).

21. Research grants or other special grants-in-aid.

22. Newsletter on instructional or general educational problems from any source within the institution.

23. Presence of visiting lecturers.

The measure of this criterion is the

TABLE XXX

SCORES ON THE ITEM "AIDS TO GROWTH" FOR MEMBER COLLEGES AND UNIVERSITIES FOR THE YEAR 1945-46 REPORTED ON AN INSTITUTIONAL GROUP BASIS.

| Percentile Rank | Scores of 48 Institutions Group 1 | Scores of 139 Institutions Group 2 | Scores of 68 Institutions Group 3 | Scores of 52 Institutions Group 4 |
|-----------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| 90 | 11.6 | 11.6 | 10.6 | 7.0 |
| 80 | 9.7 | 10.3 | 9.4 | 6.7 |
| 70 | 8.8 | 9.3 | 8.5 | 6.3 |
| 60 | 8.0 | 8.5 | 7.8 | 6.0 |
| 50 | 7.4 | 7.9 | 7.3 | 5.8 |
| 40 | 6.6 | 7.4 | 6.8 | 5.5 |
| 30 | 5.8 | 6.8 | 6.4 | 5.3 |
| 20 | 5.3 | 6.0 | 6.0 | 5.0 |
| 10 | 4.0 | 5.1 | 5.4 | 4.5 |

Table XXIX shows by deciles the scores for the two years, 1935-36 and 1945-46, for the item "Aids to Growth." It will be noted that the improvement on this measure has been uniform throughout the range. The score at the median has changed from 5.2 to 7.2—an increase of 2.0.

Table XXX presents the scores on the item "Aids to Growth" by institutional groups for 1945-46. Apparently, less emphasis is placed on these aids to growth in the Group 4 institutions than in the institutions in the other three groups.

SUMMARY

On all except one of the measures of faculty competence investigated in this

study, the faculties of member colleges and universities of the North Central Association were in general stronger in 1945-46 than they had been a decade earlier. Gains were registered on the items relating to graduate degrees, amount of graduate work, experience, publication of articles, and learned society activities. The one exception to the general upward trend was the publication of books and monographs, and the decline in scores on this measure was undoubtedly due in very large part to the war conditions which interfered both with research and with the publication of the findings of research.

Similarly, there was general improvement during the period under consideration on the measures which relate to conditions of faculty service.

The level of instructional and administrative salaries was considerably higher in 1945-46 than in 1935-36, and there was some improvement in the provision of aids to faculty growth. On one measure, that of teaching load, conditions of faculty service were somewhat less satisfactory in 1945-46 than they had been in 1935-36.

The scores on Doctor's degrees, publication of articles, the three measures of learned society activities, and the three salary measures showed larger increases at the higher deciles than at the lower deciles. This means, of course, that the differences between high ranking and low ranking institutions on these measures were greater at the end of the decade than they had been at the beginning.

As would be expected, the institutions classified in Group 4, the group which includes the institutions of more complex organization and those offering the doctorate, in general rank considerably higher than the other institutions on those measures such as Doctor's degrees, amount of graduate work, publications of books and arti-

cles, and learned society activities, which are most directly related to scholarly attainment. The salary level in Group 4 institutions likewise is, in general, considerably above the levels of the other groups.

On those measures, the scores for which are expressed as percentages, namely, Doctor's degrees, Master's degrees, and graduate training in teaching subject, the point could someday be reached where practically all institutions would have perfect or nearly perfect scores. The requirement by higher institutions of a minimum of a Master's degree as a condition of appointment to the staff and their requirement of graduate training in the subject to be taught are coming to be so widely applied that in the rather near future it is probable that these two measures will be of little value as indicators of comparative faculty competence.

The analysis presented here suggests the existence of a general trend in the direction of higher levels of faculty competence as measured by the criteria under consideration. Such a generalization must, of course, be advanced with caution. Although 1945-46 cannot be considered a normal year, it was probably, so far as higher education is concerned, a more normal year than any other since the beginning of the large-scale mobilization of manpower for war purposes. Enrolments were at a level considerably above the low point reached during the war period, but had not yet been swollen by the tremendous influx of veterans. There would seem to be little reason to believe that faculties were any stronger in 1945-46 than they would have been had there been no war. Therefore, the improvement in faculty status between 1935-36 and 1945-46 may well be thought of as representing a long-time trend rather than a difference due to the abnormality of the latter year.

Though the data are not available, it is probable that the upward trend on the measures of faculty competence observed during the period under consideration has been reversed since 1945-46. In 1946-47 total enrollments in colleges and universities more than doubled, and an even higher level was reached during the current year. Institutions have in many cases been faced with the necessity of rapid expansion of their teaching staffs during a period of short supply of fully qualified teachers. Under the circumstances, there is every reason to believe that on such measures

of faculty competence as Doctor's degrees, amount of graduate study, scholarly attainment, and teaching experience, the situation may be somewhat less satisfactory today than it was two years ago. However, enrollments are now increasing at a much less rapid rate and may be approaching at least a temporary peak. Moreover, large numbers of students are again enrolled in the graduate schools. As the supply of and demand for college teachers are brought into better balance, the trend toward higher levels of faculty competence will probably be resumed.

A REPORT ON THE 1947 CONFERENCE OF STATE CHAIRMEN

CHARLES W. BOARDMAN, Past Chairman
Commission on Secondary Schools

THE chairman of a state committee occupies an office of major responsibility and strategic importance in the work of the Commission on Secondary Schools. He is the liaison officer through whom all communications to member schools flow. He is responsible for the administration of the annual reports of member schools, but he has much greater responsibility. In its Guiding Principles the Commission takes the position that greater educational values will be attained through wholesome stimulation and wise leadership of member schools rather than from reliance on the mechanics of accreditation and that these values may be realized best in each state by placing greater responsibility for stimulation and leadership on the state committee. As a result of this general policy of the Commission there devolves on each state chairman the responsibility for leadership, guidance, and stimulation of the state committee in the activities which it undertakes for the improvement of the member schools in the respective states. This is a responsibility of no small significance or importance which will be greatly increased with the adoption of the new Policies, Regulations, and Criteria for the Approval of Secondary Schools.

In attempting to carry out their responsibilities, the state chairmen face many problems. These fall into certain general types which may be listed as follows: problems concerning the organization and administration of their offices; problems concerning the administration of the annual report forms; issues concerning the interpretation of policies, regulations, and cri-

teria; problems concerning the selection of state committee members; and problems concerning the activities of state committees and ways in which they might be of greater service to member schools. In the past the state chairmen have worked more or less in isolation, but, since they all had similar problems to solve, there has been a growing feeling that there was great need for an opportunity for them to discuss together their mutual problems and to learn from each the practices which seemed most effective in carrying on their activities. It was also felt that there were many problems of interpretation and application of its *Policies, Regulations, and Criteria* upon which there should be a more uniform agreement.

These beliefs culminated in the Conference of State Chairmen which was held on November 12 and 13, 1947. The purpose of this article is to report the matters discussed and the agreements which were made at the sessions of the conference. The conference was an arduous task, the sessions on November 12 opening at 9:00 A.M. and closing late at night, those on November 13 closing at 4:30 P.M. The conference had no official status, its purpose being merely to inform the state chairmen of each other's activities and to attempt to reach some agreement on various issues and problems. The group composing the conference did take action on some problems or issues which is reported in the following paragraphs, but any such actions are only recommendations to the Administrative Committee and to the Commission. Since the conference was composed of state chairmen who have had much experience in Associ-

ation affairs and especially in those pertaining to the Commission on Secondary Schools, it may be presumed that its recommendations will receive earnest consideration.

The conference opened on November 12 with brief reports by each state chairman on the activities and procedures of the state committees in the respective states. Most of the chairmen distributed materials illustrative of these activities. These included specific directions to principals for making annual reports, check lists by which principals could be sure they had completed the report properly, forms for analyzing the annual report and for notifying schools of errors or omissions, special forms for correspondence with schools, and materials used in publicity.

The reports of the chairmen showed that members of the state committees were usually elected either by the administrators of member schools or by the state principals' association. This latter practice met some criticism, since principals' associations included persons from non-member schools. Several states, notably Missouri, New Mexico, and Ohio, supplement the state committee by an advisory committee or council, usually chosen by the same body which elects the state committee members, which meets with the state committee and assists it in its work. These advisory committees have no vote in state committee actions. In several states the state committee members are selected according to geographical location so as to represent all areas in the state. In other states, they are chosen so as to represent schools of different sizes or types. The states vary in the number of state committee meetings per year, the number ranging from one to four, but the most common practice is to one or two meetings per year. A number of states reported that the state committees held special meet-

ings with all the administrators of member schools during the year and a few hold luncheon meetings during the annual meetings of the North Central Association.

A procedure reported by a few states which seems to have special values is the holding of a "clinic" for member schools to discuss problems related to the *Policies, Regulations, and Criteria* as to making the annual report forms. Oklahoma holds four regional conferences each year during the processing of the annual reports at which errors are checked and problems discussed. Montana holds a three-day conference at the opening of each summer session of the State University and Indiana holds such a clinic at Indiana University each August. Ohio reported that a sub-committee of the state committee meets several times a year to assist the state chairman in processing reports.

The widest variety prevailed in the adjustment of the load and the assistance available to state chairmen for operating their offices. The universities in general recognized the importance of the state Chairmanship by reducing the assignments of the chairman, four universities reducing the load 50 percent, four 25 to 30 percent, two less than 10 per cent, and only one failing to make any adjustment in load. In addition, five universities provided the chairman with part time graduate assistants. All chairmen on university staffs reported clerical assistance, three having full-time clerks, four half-time clerks, and three using the regular clerical staff. Chairmen in state departments did not seem to fare so well. Only one reported an adjustment so that half of his time is available for his duties as chairman, three reported 25 to 33 percent, three 12.5 to 17 percent, and two less than 10 percent. None had any graduate or other assistants. One reported the services of

a full-time clerk, one a half-time clerk, five used the regular clerical force, one had one-twelfth of a clerk's time and one had no clerical help.

The discussion of the problems and procedures in the handling of the annual reports was conducted by Dr. D. H. Eikenberry, chairman of the Ohio state committee. The discussion revealed that many states have check lists for assisting administrators in completing the annual reports, the most noteworthy being Missouri, Indiana, Michigan, Ohio, Colorado, and Wyoming. The great majority of state chairmen analyze the annual reports and notify schools of errors or deficiencies. In Ohio the chairman is assisted by a sub-committee of the state committee. In some states the chairman makes a preliminary suggestion concerning the recommendation of the state committee, in others the committee acts on its own initiative. Procedures concerning schools receiving adverse recommendations vary. Most states notify the schools of the recommendation by mail. A few invite the administrators of schools whose deficiencies are so great that they may be warned or dropped to attend the meeting of the state committee at which the reports are to be reviewed. It was evident that the general practice concerning opportunity to correct deficiencies was quite liberal and that adverse recommendations were not made when deficiencies had been remedied by the final meeting of the state committee prior to the annual meeting.

The difficult problem of obtaining accurate data concerning the preparation of teachers seemed to be solved most easily in those states in which the chairman was a member of the State Department of Education and had access to its files about teachers. In some states the state chairman requests and reviews the transcripts of

college courses of teachers and in at least one state Form D is used. In Ohio, Missouri, and a few other states special forms are used to obtain an analysis of teachers' preparation.

The reports of the state chairmen concerning the procedures used in the consideration of new schools applying for membership showed that there is a considerable increase in the use of the *Evaluative Criteria* of the Cooperative study of secondary schools. The complete use of this procedure, including a visiting committee, is required of all new schools in Colorado, Indiana, New Mexico, Oklahoma, West Virginia, and Wyoming. Wisconsin reported the requirement of this procedure prior to the war and that it would be reinstated as a requirement next year. The use of the *Evaluative Criteria* for a self-evaluation only is required of new schools in Kansas, Michigan, Minnesota, and Ohio.

The afternoon session on November 12 was opened by a discussion of the problems of interpreting the North Central Association to member schools, boards of education, and the public which was led by Dr. John Rufi, chairman of the Missouri state committee. It was pointed out that the best public relations with schools is "high-grade work by each state committee." The Missouri state committee has prepared a special mimeographed bulletin entitled, "The North Central Association of Colleges and Secondary Schools," which is used to inform member schools as well as the public concerning the nature of the North Central Association and the activities of the State Committee. In addition, Missouri sends to member schools an extended report about the annual meeting of the Association, a practice followed by several other states, and a descriptive report of the activities of the Advisory Council to the state committee. Colorado re-

ported publicity through the publications of the Colorado Educational Association and other agencies. The discussion culminated in the conclusion that the dissemination of information about the North Central Association to school boards and the public has been especially inadequate. There was much favorable comment about the bulletin *Pertinent Facts*, which was published several years ago but is now out of print. The conference passed unanimously a motion that *This group recommend that a committee be appointed to prepare a publication comparable to PERTINENT FACTS for general distribution*. State chairmen, state committee members, and other persons were urged to seize every opportunity to inform the public about the North Central Association through the public press, educational publications, and addresses to service organizations, such as the Rotary and Kiwanis clubs, college women's clubs, and other organizations. Attention was also called to the opportunity for college men to acquaint teachers and administrators with the North Central Association through both undergraduate and graduate courses in education.

The remainder of the afternoon of November 12 was devoted to consideration of the application of the *Policies, Regulations, and Criteria for the Approval of Schools*. There was extended discussion of an apparent conflict between Policy 5, as stated in the *Revised Policies, Regulations, and Criteria* and the Constitution of the Association. A motion to *Recommend to the Administrative Committee a revision of Policy 5 to bring the statement into harmony with the constitution of the Association and the practices of the Commission* was carried unanimously. The discussion of Policy 8, which provides for "reasonable deviations from regulations and criteria" brought out the fact that there was

great variation among the twenty states in the application of this policy. It was the consensus of the group that this policy was extremely important if "we are to get away from picayunish details" in the approval of schools.

Regulation 3, relating to the grades on which a school shall report, was discussed because of difficulties arising from the different types of six year schools and an apparent desire by some junior-senior high schools to report only on the upper three grades. The sentiment seemed to be that this was a responsibility of the state committee. The fact that this regulation does not provide for the 6-4-4 organization and that the trend to organize on this basis has already raised problems in two states and will probably become a matter of importance to others led to the passing of a motion that *The problem of the Type II Junior College be referred to the Administrative Committee*.

Regulation 6, concerning the length of the class period, was discussed with special reference to the requirements for the laboratory period. Chairman Romine of Colorado called attention to the permission granted the Denver schools for an experimental program using a shortened period for laboratory courses. A motion was passed that *Denver be requested to report on the experiments in the length of the laboratory period at the next meeting of the Commission*. The consideration of the length of the period and the time devoted to a unit of work in the summer schools brought out the need for a careful study of the summer school. It was felt that such a study should be made as soon as feasible. As a basis for action on the annual reports this coming spring a motion was adopted that *The 1947-48 Reviewing Committees be requested to accept 115 clock hours per unit of credit in summer school as the basis for meeting the requirement of Regulation 8*. There was

also some discussion of the General Educational Development Tests, some chairmen believing that the tests do not serve the best interests of the school. It was agreed that the practice of granting diplomas or equivalency certificates on the basis of scores on G.E.D. Tests is to be continued for *veterans only*, but that credit for basic military training should be discontinued.

Criterion 4, "The School Library and Library Service," was considered at some length, the discussion revolving about the inability to obtain properly prepared librarians and the failure of most colleges and universities to provide curricula for preparing librarians. The provisions in Regulation 3(b) of the new Criteria relating to the librarian were also debated, especially Footnote 5 which states that the Regulation shall be in force upon adoption, but that state committees may make exceptions until 1955-56. It was agreed that the following addition to this footnote should be proposed: *This requirement applies to library personnel in all North Central Schools including staff members employed prior to the adoption of this Regulation.* The desirability of a joint study by the Commission on Secondary Schools and the Commission on Colleges and Universities of the status of library personnel in secondary schools and the opportunities for the preparation of librarians in the Colleges of the Association was suggested, but no action was taken on this issue.

The question of what constitutes an appropriate distribution of the professional graduate courses for the principalship under Criterion 6(c) was raised. It was agreed that this was a matter of interpretation which must be left to the state committees. It was suggested that the requirements of the state university in each state for a graduate degree in secondary school

administration formed an appropriate standard for the guidance of the respective state committees. It was agreed, however, that the schools in which the principal failed to meet the preparation required by Criterion 6(c) should be warned. A number of issues concerning the preparation of teachers as specified in Criterion 7a, b, c, were also raised, but the group agreed that no changes in this criterion should be made at present and it was the responsibility of each state committee to make decisions concerning the qualifications of teachers.

The basis for computing the proportion of pupils who carry an extra load (Criterion 9) was discussed briefly. It was agreed that a proportion of more than 25 percent in one grade is not a violation of this Criterion when the proportion computed on the total enrollment of the school does not exceed 25 percent. Required courses such as physical education or music are not to be included in determining pupil load. It was also decided that it was not the function of state committees to approve special courses, such as safety education, under Criterion 10(a). The discussion of the Allied Activity Program, Criterion 10(b) brought out the fact that there was much variation among the states in the application of this criterion. The major problems seemed to be the number of organizations sponsoring contests, the demands upon schools to participate in contests, and the difficulty of finding an appropriate means of limiting a school's participation in such contests to a reasonable number. No decisions on these issues were reached, but all chairmen recognized the acute nature of these problems and their serious import for education.

The session on the evening of November 12 was devoted to a general discussion of the practices in relation to

the Reviewing Committees and the program of the annual meeting of the Commission. The state chairmen expressed approval of the practice of inviting numbers of secondary school administrators to act on the Reviewing Committees as a valuable procedure for extending opportunity to participate in the work of the Commission and in interpreting the Association to member schools. One extremely valuable suggestion was that an assistant chairman for each Reviewing Committee should be appointed who should act as secretary to the chairman of the Committee.

A tentative statistical summary form for the analysis of the 1947-48 annual reports was distributed to the state chairmen on the morning of November 13 for criticism. Many suggestions of great value were made which will enable the secretary to make the statistical report of greater worth. This was followed by a progress report by Dr. Carl G. F. Franzén, chairman of the Committee, on New Report Forms. The discussion resulted in a number of suggestions to be considered by the Committee at its next meeting.

In the afternoon Dr. Philip Bail, Secretary of the Commission on Research and Service, reported on the activities of that Commission which are of special interest to the Commission on Secondary Schools. Dr. Bail discussed the major committees of the Commission on Research and Service and distributed a packet of publications of the Commission. The discussion which followed was concerned quite largely with the ways to coordinate the activities of the two Commissions and particularly with the coordination of research. The Conference voted unanimously that *The Administrative Committee be asked to form a committee to crystallize proposals for needed research and to cooperate with*

the Commission on Research and Service.

The last topic considered by the conference was means by which the Commission and the state committees might be of greater service to the member schools. The suggestions included special studies which might be initiated by state chairmen and carried out in colleges; meetings in conjunction with other educational organizations in each state; and extension of the benefits obtained by the member schools to those which are non-North Central schools. Especial emphasis was laid upon the use of the *Evaluative Criteria* of the Cooperative Study of Secondary School Standards. Special studies of importance to the schools were suggested, among them being a study of library offerings, the holding power of the schools, the administration of the core curriculum, summer high schools, fraternities and sororities in high schools, accrediting junior high schools and separately organized vocational schools. The problem of the 6-4-4 organization was again raised and the conference voted unanimously that *The Commission on Secondary Schools move as rapidly as possible to develop criteria for evaluation of the Type II Junior College as an extension of the secondary school.* The group also agreed that the entire state committee in each state be invited to attend a conference on mutual problems on Monday, March 8, 1948, the opening day of the sessions of the annual meeting. Following this decision the conference adjourned *sine die*.

This conference of state chairmen seems to be significant in a number of ways. So far as any of the present chairmen are aware, this is the first time in the history of the North Central Association that the chairmen have met for two days to discuss their work, their mutual problems, and issues of importance to the Commission and the

member schools. The exchange of information about the nature of their offices, the practices and procedures used in carrying on their work, and the activities of the state committees were extremely illuminating to all the chairmen and enabled each to gather new ideas for making their activities and those of the state committees more effective. The discussion of the practical problems arising from the application of the *Policies, Regulations, and Criteria* enabled the chairmen to obtain a better understanding of their mutual problems and to reach agreements concerning the interpretation of the *Criteria* which should result in greater uniformity in their application without interfering with the prerogatives of the state committees. The debate upon is-

issues frequently crystallized in recommendations designed to improve the activities of the Commission and to be beneficial to member schools. Many of these recommendations have already been implemented by the Administrative Committee and the remainder will undoubtedly be acted upon in the near future. The opportunity afforded by the conference to exchange ideas and to talk over problems has resulted in a broadened vision of the possibilities for the Commission and the state committees to be of greater service to the secondary schools. It seemed to be the unanimous judgment of the state chairmen that this conference had been of great personal value to each one present and that it should become an annual event.

REPORT OF THE SUBCOMMITTEE ON TEACHER PERSONNEL ON SUPPLY OF AND DEMAND FOR TEACHERS¹

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THIS report (March, 1948) of the Subcommittee follows the procedure employed in the same study one, two, three, and four years ago in so far as the investigation of "supply of" teachers is concerned. Findings in this area are presented in Part I. The new phase of the investigation conducted for the first time in 1948 seeks to bring to light meaningful information concerning the "demand for" teachers. Findings in this area are presented in Part II. Other information concerning emergency teachers, total teachers in service, prospects of oversupply, and salaries is presented in Part III.

In seeking to measure the "supply of" teachers, the chief certification officers in each of the twenty states were asked to collect data from all of the colleges and universities within their respective states concerning the number of college students who, at the close of the current year, will complete programs of study entitling them to standard certificates. For purposes of comparison, exactly the same informa-

tion was requested and supplied by exactly the same institutions concerning the number of students who had completed such courses of study and who had qualified for standard certificates in 1947, 1945, and 1941. The year 1947 was used because it is the most recent year for which complete data can be assembled; 1945 was used because it represents the height of the teacher shortage; 1941 was accepted as a representative prewar year. The designation of 1941 as a representative prewar year does not infer that supply was in balance with demand at that time. Without accurate figures being available, it will be readily remembered that the supply of qualified elementary teachers with as many as four years of college training pointing to this important task was not equal to the demand. On the other hand, in most of the twenty states the vast majority of elementary teachers had no more than two years of college training. The 60-hour level was widely accepted as a basis for the issuance of the standard elementary certificate. It seems fair to assume, therefore, that only a small percentage of the elementary schools within the twenty-state area were, in 1941, staffed with teachers having completed as much as four years of post-secondary training. Also, it will be recalled that the available supply of persons qualifying for the standard high school certificate was in excess of the demand in certain fields. In 1941 many more teachers

¹ This is one of two current studies by the Subcommittee. This study is concerned only with the supply of and demand for teachers in elementary and high schools. Another study being conducted by Mr. Mosier is concerned with the supply of and demand for teachers at the college and university level.

² The Subcommittee on Teacher Personnel consists of John R. Emens, President, Ball State Teachers College, Muncie, Indiana; Earl E. Mosier, State Department of Education, Lansing, Michigan; T. M. Stinnett, State Department of Education, Little Rock, Arkansas; and Ray C. Maul, Chairman, who directed the study.

than were required in certain fields were qualified for the standard high school certificate, while in other fields the supply hardly equaled the demand. The year 1941, therefore, is arbitrarily chosen in order to make possible a percentage comparison with each of the years 1945, 1947, and 1948.

In seeking information concerning "supply of" teachers, the same inquiry form was used in every instance. The reporting college authorities were asked to classify elementary teachers according to the 120-semester-hour, 90-hour, 60-hour, or 30-hour level of preparation, and to classify high school teachers according to the major field of preparation. Each student was counted only once. In the event a student was equally well prepared in two or more high school fields, the college authority was requested to make an arbitrary decision and to classify each person in only one field.

Throughout the study a conscientious effort has been made to eliminate any possibility of duplication. All figures presented in all the tables, therefore, represent persons.

An important limiting factor should be recognized in interpreting "supply of" teachers information. No effort was made to determine the number of students who accepted teaching positions, but rather the inquiry sought to determine the number who qualified in 1941, 1945, or 1947, or will qualify for standard certificates in 1948. The purpose of the study is to identify and count each person who qualified or will qualify for the standard certificate without respect to vocational activity after college graduation. It seems fair to assume that the extent to which college graduates will seek teaching positions is determined largely by the attractiveness of competitive vocational opportunities.

PART I. SUPPLY OF TEACHERS

IN THE twenty states, only 4,027 college students will qualify at the 120-semester-hour level for elementary teaching in 1948. This is 79.4 percent of the 5,072 who so qualified in 1941. Considering the 90-hour, 60-hour, and 30-hour levels of preparation, as well as college graduates, only 9,977 will qualify for elementary teaching in 1948. This is 64.7 percent of the 15,414 who so qualified in 1941. At the high school level, 16,700 will qualify in 1948. This is 112.2 percent of the 14,981 who so qualified in 1941.

These figures point clearly to a net loss at the elementary level, in contrast with a gain at the high school level. Moreover, the fields of plentiful supply in 1941 show the greatest gains

in the high school field. This is indicated by the fact that 2,717 will qualify as social science teachers in 1948, which is 108.9 percent of the 2,496 who so qualified in 1941, when it will be recalled there was an oversupply of social science teachers. Again, 2,067 will qualify as English teachers in 1948. This is 100.8 percent of the 2,051 who so qualified in 1941, when the supply of English teachers was ample. In contrast, only 1,161 will qualify in home economics in 1948. This is only 68.0 percent of the 1,707 who so qualified in 1941.

Table I presents a summary of the total figures for each year and also shows the percentage comparisons with 1941 being designated arbitrarily as 100 percent.

TABLE I

NUMBER AND PERCENTAGE OF COLLEGE AND UNIVERSITY STUDENTS COMPLETING STANDARD CERTIFICATE REQUIREMENTS IN 1948, 1947, 1945, AND 1941 (FOR 1948, 1946, and 1945 THE PERCENTAGES OF THE 1941 FIGURES ARE SHOWN).

| Type of Preparation | 1948 | | 1947 | | 1945 | | 1941 | |
|---------------------|--------------------|-----------------|--------------------|-----------------|--------------------|-----------------|--------------------|-----------------|
| | Number of Students | Percent of 1941 | Number of Students | Percent of 1941 | Number of Students | Percent of 1941 | Number of Students | Percent of 1941 |
| <i>Elementary</i> | | | | | | | | |
| 120 sem. hrs. | 4,027 | 79.4 | 4,166 | 82.1 | 3,708 | 73.1 | 5,072 | 100 |
| 90 sem. hrs. | 589 | 51.3 | 666 | 58.0 | 640 | 55.7 | 1,149 | 100 |
| 60 sem. hrs. | 4,187 | 61.0 | 3,583 | 52.2 | 2,982 | 43.4 | 6,865 | 100 |
| 30 sem. hrs. | 1,174 | 50.4 | 1,276 | 54.8 | 955 | 41.0 | 2,328 | 100 |
| ELEMENTARY TOTAL | 9,977 | 64.7 | 9,691 | 62.9 | 8,285 | 53.7 | 15,414 | 100 |
| <i>High School</i> | | | | | | | | |
| Agriculture | 528 | 98.7 | 385 | 72.0 | 127 | 23.7 | 535 | 100 |
| Art | 455 | 123.3 | 252 | 68.3 | 200 | 54.2 | 369 | 100 |
| Commerce | 1,338 | 93.6 | 1,026 | 71.7 | 606 | 42.4 | 1,430 | 100 |
| English | 2,067 | 100.0 | 1,679 | 81.9 | 1,381 | 67.3 | 2,051 | 100 |
| Foreign Language | 481 | 105.7 | 365 | 80.2 | 266 | 58.5 | 455 | 100 |
| Home Economics | 1,161 | 68.0 | 1,008 | 59.0 | 1,151 | 67.4 | 1,707 | 100 |
| Industrial Arts | 779 | 151.0 | 642 | 124.4 | 113 | 21.9 | 516 | 100 |
| Journalism | 49 | 490.0 | 18 | 180.0 | 7 | 70.0 | 10 | 100 |
| Library Science | 113 | 116.5 | 73 | 75.3 | 84 | 90.0 | 97 | 100 |
| Mathematics | 1,026 | 152.9 | 692 | 103.1 | 329 | 49.0 | 671 | 100 |
| Music | 1,125 | 97.2 | 899 | 77.6 | 611 | 52.8 | 1,158 | 100 |
| Physical Education | | | | | | | | |
| Men | 1,546 | 267.5 | 933 | 161.4 | 188 | 32.5 | 578 | 100 |
| Women | 680 | 157.4 | 481 | 111.3 | 314 | 72.7 | 432 | 100 |
| Science | | | | | | | | |
| General Science | 399 | 116.3 | 291 | 84.8 | 148 | 43.1 | 343 | 100 |
| Biology | 601 | 115.4 | 366 | 70.2 | 178 | 34.2 | 521 | 100 |
| Chemistry | 319 | 105.6 | 196 | 64.9 | 103 | 34.1 | 302 | 100 |
| Physics | 145 | 105.8 | 114 | 83.2 | 38 | 27.7 | 137 | 100 |
| Social Sciences | 2,717 | 108.9 | 2,277 | 91.2 | 1,052 | 42.1 | 2,496 | 100 |
| Speech | 358 | 132.6 | 267 | 99.0 | 136 | 50.4 | 270 | 100 |
| Other | 813 | 100.0 | 1,169 | 143.8 | 554 | 68.1 | 813 | 100 |
| HIGH SCHOOL TOTAL | 16,700 | 112.2 | 13,133 | 88.2 | 7,586 | 50.9 | 14,891 | 100 |
| GRAND TOTAL | 26,677 | 88.0 | 22,824 | 75.3 | 15,871 | 52.4 | 30,305 | 100 |

PART II. DEMAND FOR TEACHERS

THE term "demand for" teachers as employed in this study is applied only to those persons who accept teaching positions at the beginning of a school year and who, the preceding year, did not teach anywhere. This term has no relation to reports concerning vacancies or placements, it being recognized that very many vacancies occur through teachers leaving positions to accept other positions. The use of the term "demand for" in this study, there-

fore, has rigid limitations. In employing this term the attempt is made to determine the actual number of persons for whom there is *demand* at the beginning of a school year as indicated by the number of new persons who enter the teaching profession.

PROCEDURE

State Departments of Education to whom all employers of elementary and high school teachers report annually

were asked to assist in identifying new teachers and to classify them according to types of positions held. It was discovered that in most state offices such information is not available. In three states (Arkansas, Kansas, and Wisconsin) the data, either in complete or incomplete form, were available. In three other states (Arizona, Missouri, and Nebraska) the state office sent inquiries to employers of elementary and high school teachers. In all instances the data were sufficiently complete to comprise a representative report. Only in Kansas, however, were the reports fully complete. The 1946-47 Kansas report covers "demand for" high school teachers only while the 1947-48 report covers both high school and elementary teachers.

FINDINGS IN THE DEMAND FOR TEACHERS

In the six states where data are available a total of 5,192 new high school teachers were employed while, at the close of the preceding year, the colleges produced 3,639 graduates who qualified for standard high school certificates in those states. In the six states where data are available a total of 5,414 new elementary teachers were employed while, at the close of the preceding year, the colleges produced 2,292 graduates who qualified for standard elementary certificates in those states. The distribution of college graduates who qualified for standard high school certificates does not follow the distribution of new high school teachers employed the following September. This distribution is shown in Tables II A and II B.

Of the 5,414 new elementary teachers employed 2,191 entered service in rural schools, 1,933 in town schools, and 1,290 in schools not reported as rural or town. Of the 2,292 who quali-

fied for the standard elementary certificate only 993 had completed the full four-year college program. Seventy-four qualified for certificates at the 90-hour level; 895 at the 60-hour level; and 330 at the 30-hour level.

APPLICATION OF FINDINGS ON THE DEMAND FOR TEACHERS

It is recognized that conditions vary from state to state and the meaning of "supply of" in comparison with "demand for" data, therefore, has different interpretations and applications among the states. Prominent among the factors conditioning the interpretation and application of these data in the various states are: (1) the census reports which show with accuracy the number of pupils expected to enter each of the twelve grades within the next few years, (2) competitive employment attractions for college graduates, (3) increased requirements for certificates, (4) the greatly increased demand for college teachers which is drawing and will draw from the existing supply of better qualified high school teachers, (5) clearer definition of the status of the "emergency" teacher and the aggressiveness of action in eliminating the teacher of substandard qualifications, (6) expansion or retardation of the movement to permit married women to continue to teach, (7) improvement of retirement provisions, (8) standardization of class size, (9) expansion and diversification of elementary and high school curriculums, and (10) the correlation of salaries with the qualifications of teachers.

Table II presents the composite comparison among the six reporting states. Table III shows the high school comparisons in Kansas in 1946-47. Table IV gives the high school and elementary comparisons in Kansas in 1947-48.

TABLE II
DEMAND FOR TEACHERS AND SUPPLY, WITH NUMBER OF PERSONS WHO ENTERED TEACHING POSITIONS AT THE BEGINNING OF THE SCHOOL YEAR
WHO DID NOT HOLD SUCH POSITIONS THE PRECEDING YEAR
(Based on Reports from Arizona, Arkansas, Kansas, Missouri, Nebraska, and Wisconsin)

| Field of Major Assignment | Field of Minor Assignment | | | | | | | | | | | | | | | | | | | Total | |
|---------------------------|---------------------------|----|-----|-----|----|-----|-----|----|----|-----|-----|-----|----|-----|----|----|----|-----|----|--------|---------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | Demand | Supply ¹ |
| 1. Agriculture | 159 | 1 | 3 | 3 | | 1 | 2 | | | 3 | 6 | | | 6 | 2 | | 1 | 10 | | 196 | 100 |
| 2. Art | | 62 | | | 1 | 6 | | | | 1 | 1 | 1 | 2 | 2 | | | 1 | 36 | 1 | 70 | 100 |
| 3. Commerce | 1 | | 348 | 36 | 3 | 6 | 2 | 2 | 1 | 16 | 6 | 6 | 12 | 2 | 4 | | 1 | 36 | 1 | 487 | 364 |
| 4. English | 4 | 4 | 31 | 513 | 65 | 20 | 2 | 16 | 11 | 23 | 60 | 6 | 14 | 13 | 10 | 1 | 1 | 132 | 37 | 964 | 457 |
| 5. Foreign Lang. | | 1 | | 12 | 53 | | | 1 | 1 | | | | | | | | 1 | 8 | | 70 | 92 |
| 6. Home Economics | | | 6 | 16 | 2 | 294 | | | | 10 | 3 | 31 | 14 | 22 | 16 | 1 | 1 | 10 | 1 | 386 | 308 |
| 7. Industrial Arts | 5 | 1 | | 1 | | | 119 | | | | | | 1 | 9 | 2 | 2 | 3 | 11 | 1 | 194 | 243 |
| 8. Journalism | | | | 6 | | | | 7 | | | | | | | | | 1 | 2 | 1 | 27 | 2 |
| 9. Library Science | | | 1 | 9 | 1 | | | 2 | 42 | 2 | | | | | 1 | 1 | 1 | 1 | | 60 | 9 |
| 10. Mathematics | 4 | | 12 | 14 | 9 | | 5 | 1 | 1 | 273 | 2 | 33 | 5 | 44 | 20 | 10 | 20 | 39 | 1 | 498 | 183 |
| 11. Music | | 1 | 2 | 15 | 2 | 1 | | 1 | 1 | 2 | 334 | 2 | 3 | 2 | 1 | 2 | 4 | 15 | 4 | 387 | 347 |
| 12. Phys. Ed.—Men | 1 | | 3 | | | | 10 | 1 | 2 | 9 | 2 | 175 | 6 | 18 | 5 | 3 | 4 | 38 | 1 | 279 | 211 |
| 13. Phys. Ed.—Women | | 1 | 1 | 8 | 1 | 3 | | 1 | 1 | 1 | 7 | 141 | 9 | | 5 | 1 | | 12 | | 191 | 161 |
| 14. General Science | 4 | | 1 | 2 | 1 | 4 | 1 | 1 | 1 | 38 | 5 | 12 | 3 | 132 | 21 | 10 | 6 | 21 | 1 | 265 | 66 |
| 15. Biology | | | 5 | 10 | 1 | 2 | 2 | 1 | 1 | 7 | 12 | 12 | 4 | 15 | 81 | 11 | 7 | 9 | 1 | 167 | 135 |
| 16. Chemistry | | | | 1 | | 2 | | | | 1 | 3 | 3 | | 4 | 5 | 36 | 14 | 1 | 1 | 68 | 80 |
| 17. Physics | | | 1 | 1 | | | | | | 10 | 1 | 1 | 1 | 6 | 2 | 4 | 21 | 8 | 5 | 63 | 32 |
| 18. Social Science | 4 | 1 | 16 | 38 | 8 | 4 | 6 | 4 | 4 | 29 | 15 | 44 | 14 | 17 | 13 | 3 | 3 | 499 | 15 | 740 | 671 |
| 19. Speech | | | | 7 | | | | 1 | | | 1 | 1 | | 3 | 4 | | | 4 | 53 | 74 | 78 |
| High School Total | | | | | | | | | | | | | | | | | | | | 5,192 | 3,639 |
| Elementary School Total | | | | | | | | | | | | | | | | | | | | 5,414* | 2,292† |

This table is a composite of reports from six states in which "demand for" data are available. In two states the reports are complete; in two states the reports are almost complete and may, therefore, be considered to be representative; in two states the reports are based on samplings of more than 60 percent. The table shows each new teacher as (1) devoting full time to one teaching field or (2) dividing her time between two fields. In the latter case, the major teaching assignment is shown on the line and the minor teaching assignment is shown in the column. For example, 150 new teachers devote full time to the teaching of agriculture while 1 new teacher teaches agriculture as a major assignment and art as a minor assignment.

1. Number of college and university students who completed courses of study entitling them to standard certificates at the same time new teachers were employed as indicated under "Demand".

* Elementary school demand: 2191 rural, 1933 town, and 1290 not divided.

† Elementary school supply: 993 with 120 sem. hrs.; 74 with 90 sem. hrs.; 895 with 60 sem. hrs. and 330 with 30 sem. hrs.

TABLE III

DEMAND FOR TEACHERS IN KANSAS, 1946-47, AND SUPPLY, WITH NUMBER OF PERSONS WHO ENTERED HIGH SCHOOL TEACHING POSITIONS IN KANSAS IN SEPTEMBER 1946 WHO DID NOT HOLD IDENTICAL POSITIONS THE PRECEDING YEAR

| Field of Major Assignment | Field of Minor Assignment | | | | | | | | | | | | | | | | | | | Total | |
|---|---------------------------|---|----|----|---|----|----|---|---|----|----|----|----|----|----|----|----|----|----|--------|---------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | Demand | Supply ¹ |
| 1. Agriculture | 6 | | | | | | | | | | | | | | | | | | | 9 | 1 |
| 2. Art | | 7 | | | | | | | | | 2 | | | | | | | | | 9 | 12 |
| 3. Commerce | | | 35 | 3 | | 2 | | | | 1 | 4 | 4 | 5 | | 2 | | | 6 | | 62 | 44 |
| 4. English | | 1 | 4 | 31 | 7 | 3 | | 5 | | 1 | 14 | 2 | 4 | 5 | | | | 20 | 7 | 104 | 53 |
| 5. Foreign Lang. | | | | | 1 | | | | | | | | | | | | | | | 1 | 14 |
| 6. Home Economics | | | 1 | 4 | | 27 | | | | 2 | | 15 | 3 | 8 | 4 | | | | 1 | 48 | 26 |
| 7. Industrial Arts | 2 | 1 | | 1 | | | 13 | | | | | | | 4 | 1 | | | 3 | | 42 | 10 |
| 8. Journalism | | | | | | | | | | | | | | | | | | | | | |
| 9. Library Science | | | | 1 | | | | | 1 | 8 | | 11 | | 15 | 7 | 2 | | | | 2 | 6 |
| 10. Mathematics | | | 4 | 3 | 1 | 1 | | | | | 60 | 1 | 1 | | | | 1 | 5 | 1 | 55 | 15 |
| 11. Music | | | | | | | | | | 3 | | 7 | 1 | 6 | | | 3 | 4 | 1 | 71 | 68 |
| 12. Phys. Ed.—Men | | | 1 | | | | 1 | | | | | | 12 | 1 | 1 | | 1 | 1 | | 26 | 10 |
| 13. Phys. Ed.—Women | | | | | | | | | | 1 | | 2 | 1 | 1 | 2 | | 1 | | | 15 | 9 |
| 14. General Science | | | | | 1 | | | | | 1 | 2 | 3 | 1 | 1 | 4 | 3 | 1 | 1 | | 11 | 3 |
| 15. Biology | | | | 2 | | | | | | 2 | 2 | | | | | 1 | | | | 14 | 23 |
| 16. Chemistry | | | | | | | | | | | | | | | 1 | 1 | | | | 2 | 8 |
| 17. Physics | | | | | | | | | | 1 | | | | | 1 | | | | | 1 | 5 |
| 18. Social Science | | | 2 | 1 | 2 | | | 1 | 1 | 2 | 1 | 10 | 3 | | 3 | 1 | 1 | 27 | 2 | 59 | 69 |
| 19. Speech | | | | | | | | | | | | | | | | | | | 3 | 3 | 10 |
| High School Total | | | | | | | | | | | | | | | | | | | | 534 | 386 |
| Elementary School Total: data not available | | | | | | | | | | | | | | | | | | | | | |

In this table is shown the total number of persons who entered teaching positions in the high schools of Kansas in September, 1946, who, during the 1945-46 school year, did not hold such positions anywhere. This is a complete report covering all high schools in the state. It shows each new teacher as (1) devoting full time to a teaching field or (2) dividing her time between two fields. In the latter case, the major teaching assignment is shown on the line and the minor teaching assignment is shown in the column. For example, 6 new teachers devote full time to the teaching of agriculture while 1 new teacher teaches agriculture as a major assignment and commerce as a minor assignment.

¹ Number of college and university students in Kansas who completed courses of study in 1945-46 entitling them to standard high school certificates and qualifying them for employment in September 1946, counted by first major field of preparation only—that is, each person counted only once.

TABLE IV
DEMAND FOR TEACHERS IN KANSAS, 1947-48, AND SUPPLY, WITH NUMBER OF PERSONS WHO ENTERED TEACHING POSITIONS IN KANSAS IN SEPTEMBER 1947 WHO DID NOT HOLD IDENTICAL POSITIONS THE PRECEDING YEAR

| Field of Major Assignment | Field of Minor Assignment | | | | | | | | | | | | | | | | | | | Total | |
|---------------------------|---------------------------|---|----|----|----|----|----|---|---|----|----|----|----|----|----|----|----|----|----|--------|---------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | Demand | Supply ¹ |
| 1. Agriculture | 10 | | | | | | | | | | | | | | | | | 1 | | 11 | 13 |
| 2. Art | | 6 | | | 1 | | | | | | | | | | | | | | | 7 | 23 |
| 3. Commerce | | | 34 | 2 | 1 | 2 | | | | 2 | 3 | 2 | | | | | | 12 | | 61 | 61 |
| 4. English | | 2 | 5 | 26 | 12 | 6 | 1 | 3 | 1 | 1 | 18 | 3 | 3 | 2 | | 2 | | 13 | 5 | 100 | 67 |
| 5. Foreign Lang. | | | | 1 | 2 | | | | | | | | | | | | 1 | 3 | | 3 | 16 |
| 6. Home Economics | | | 1 | 6 | 1 | 35 | 26 | | | 3 | | | 5 | 1 | 5 | | 2 | 3 | | 58 | 72 |
| 7. Industrial Arts | | | | | | | | | | | | 11 | 1 | 1 | | | 2 | 4 | | 48 | 45 |
| 8. Journalism | | | | | | | | | | | | | | | | | | | | | |
| 9. Library Science | | | | | | | | | 2 | | | | | | | | 1 | 1 | | 4 | 3 |
| 10. Mathematics | | | 1 | 5 | 2 | | 3 | 1 | 1 | 17 | 1 | 9 | | 5 | 3 | 3 | 7 | 9 | | 66 | 35 |
| 11. Music | | | | 4 | 1 | | | | | 1 | 57 | | 1 | 1 | | 1 | | 1 | 3 | 72 | 81 |
| 12. Phys. Ed.—Men | | | | | | | 2 | 1 | 1 | 1 | | 4 | | 2 | | 1 | | 9 | | 20 | 48 |
| 13. Phys. Ed.—Women | | | | | | | | 1 | | | | | 10 | 4 | | 1 | | 8 | | 25 | 24 |
| 14. General Science | | | | | | 1 | | | | 2 | 1 | | | | 1 | 1 | | 2 | | 11 | 5 |
| 15. Biology | 1 | | 1 | 1 | 1 | | 2 | | | | | 3 | 1 | 1 | | 4 | 2 | 1 | | 17 | 19 |
| 16. Chemistry | | | | 1 | | | | | | 1 | 1 | 1 | | | | | 2 | | | 5 | 12 |
| 17. Physics | | | | | | | | | | | | | | | | | | | | 2 | 8 |
| 18. Social Science | | | 3 | 2 | 2 | | 2 | 1 | 1 | 2 | | 15 | 8 | 1 | 1 | 1 | | 28 | | 67 | 116 |
| 19. Speech | | | | | | | | | | | | | | | | | | 1 | 2 | 3 | 14 |
| High School Total | | | | | | | | | | | | | | | | | | | | 580 | 662 |
| Elementary School Total | | | | | | | | | | | | | | | | | | | | 1,069* | 305† |

In this table is shown the total number of persons who entered teaching positions in the schools of Kansas in September, 1947, who, during the 1946-47 school year, did not hold such positions anywhere. This is a complete report covering all the schools in the state. It shows each new teacher as (1) devoting full time to a teaching field or (2) dividing her time between two fields. In the latter case, the major teaching assignment is shown on the line and the minor teaching assignment is shown in the column. For example, 10 new teachers devote full time to the teaching of agriculture while one new teacher teaches agriculture as a major assignment and social science as a minor assignment.

¹ Number of college and university students in Kansas who completed courses of study in 1946-47 entitling them to standard certificates and qualifying them for employment in September, 1947. (Counted by first major field of preparation only; each person counted only once.)

* Elementary school demand: 740 rural, 320 town.

† Elementary school supply: 87 with 120 sem. hrs.; 3 with 90 sem. hrs.; 127 with 60 sem. hrs. and 88 with 30 sem. hrs.

PART III

Note: The information and opinions presented below are reported directly by the chief certification officers in state departments of education. Reports (some incomplete) were received from all twenty states.

EMERGENCY ELEMENTARY
TEACHERS

The number and the qualifications of emergency elementary teachers in service during 1947-48 can not be determined because (1) accurate figures are not available in most states and (2) the term "emergency" has no uniform meaning. In some states, where the minimum requirement for the standard elementary certificate is 90 semester hours, a teacher who lacks only one semester hour of attaining that level may be classified as an "emergency" teacher; in a number of states, where standard elementary certificates are issued on as few as 30 semester hours, a teacher may obtain a "standard" certificate and thus not be considered as an "emergency" teacher, although her preparation is scarcely more than one third the preparation of the "emergency" teacher in another state. A third difficulty arises from the fact that in several states the emergency elementary certificate is issued without knowing whether or not the recipient is under contract or will obtain a teaching position.

In all of the twenty states, the emergency elementary certificate is issued for one year only. Provision for the issuance of another emergency elementary certificate, therefore, may be determined from year to year in accordance with the severity of the demand (the shortage of teachers with standard qualifications). In one state it is believed that the issuance of elementary emergency certificates for

1948-49 will not be necessary; in one state it is believed that the renewal of elementary emergency certificates of present holders will meet 1948-49 demands; in eighteen states it is believed that emergency elementary certificates must be issued to new persons to enter service in September, 1948.

In ten states the requirements for the issuance of emergency elementary certificates to present holders of such certificates will be higher than a year ago. One state will issue the elementary emergency certificate to present holders on "request of superintendent"; one state will issue it to high school graduates; one state will require six semester hours or will impose reduction of one step on salary schedule; sixteen states will require from five to twelve semester hours, averaging seven semester hours, and one state will not issue the emergency elementary certificate to anyone who has completed less than 95 semester hours.

In two states persons who now hold no certificates may obtain the emergency elementary certificate on graduation from high school and passage of an examination; in one state the requirement for the elementary emergency certificate to be issued to persons not now holding any type of certificate is eight semester hours; in three states, twelve semester hours; in six states, 30 semester hours; in one state, 45 semester hours; in two states, 60 semester hours; in one state, 90 semester hours; in three states the emergency elementary certificate is not to be issued to any person not now holding a certificate of any type.

Prospects are not bright for return to standard requirements for elementary teachers. In two states it is believed that emergency elementary certificates must be continued for seven years; in

three states, for five years; in four states for four years; in four states, for three years; in three states, for two years. In two states the need to issue emergency certificates to rural teachers may continue indefinitely.

In Michigan, the number of emergency teachers in service is about the same as a year ago. In all others, the number is less, with the largest percentage decrease being in Ohio, Montana, Nebraska, and Ohio. (The extent to which reorganization and elimination of one-room schools affects these figures is not known.)

EMERGENCY HIGH SCHOOL TEACHERS

In four states it is believed the issuance of emergency high school certificates for 1948-49 will not be necessary. In sixteen states, it is believed such emergency certificates must be issued for next year, but in several states the need will exist in certain fields only. Ten of the sixteen states will impose higher requirements for the issuance of the high school emergency certificate than a year ago.

One state will issue the high school emergency certificate on 60 semester hours; four states on 90 semester hours, and one state on 105 semester hours. In five states it is believed the need to issue high school emergency certificates (at least in certain fields) will continue five years; in three states, three years; in four states, two years; and in six states, one year.

In South Dakota, the number of emergency high school teachers increased slightly over the number in service year ago. In all other reporting states, the number decreased. In Arizona the decrease was 81 percent and in Ohio, 48 percent.

TOTAL TEACHERS IN SERVICE

Only in Arizona where the increase is 13 percent, has the total number of

elementary teachers in service significantly increased. In Illinois, Kansas, Montana, and South Dakota, the total number in service is less. (The extent to which reorganization and elimination of one-room schools affects these figures is not known.)

In most states the total number of high school teachers in service increased slightly over a year ago. In Arizona the increase of 13 percent is greatest.

NUMBER OF PERSONS LEAVING TEACHING SERVICE WITHIN A STATE

In Ohio, 3,651, or almost 10 percent of the teachers in service in 1946-47, did not return to teaching service in 1947-48. In the other reporting states accurate figures are not available, but estimates of the number of teachers leaving service range from 4 percent in Arizona to 33 percent in Wyoming. The average of the estimates is 13.7 percent. In the reports these teachers were not divided between the elementary and high school fields nor between those holding standard certificates and those holding only emergency certificates.

PROSPECTS FOR OVERSUPPLY OF TEACHERS

Although the shortage of elementary teachers with standard qualifications is no less than desperate, it must be recognized that the supply of high school teachers meeting standard certificate requirements is rapidly approaching a balance with demand, particularly in certain fields. The authorities in ten of the reporting states foresee an oversupply of high school teachers with standard qualifications in certain fields. Eight states foresee an oversupply in men's physical education; seven in social science; five in English; two in mathematics, and two in science. In five states no oversupply is foreseen.

SALARIES

Exact information concerning salaries and salary increases is not available, in most of the states. In Michigan where 1948-49 resources are known, an increase of 17 percent for the 1948-49 school year is anticipated. In three states, the state authorities anticipate no increases for the coming year, and the other estimates range from 5 percent in five states to 10-25 percent in one state. The average anticipated increase is 8.8 percent.

Current salaries for elementary teachers increased 22.38 percent in In-

diana over a year ago. In other states the estimated increase for elementary teachers was from less than 5 percent in one state to 38 percent in another state, with the average of the estimated increase for elementary teachers being 18.3 percent.

Current salaries for high school teachers increased 22.38 percent in Indiana over a year ago. In other states the estimated increase for high school teachers was from less than 5 percent in one state to 30 percent in another state, with the average of the estimated increase for high school teachers being 16.8 percent.

PART IV. SUMMARY AND CONCLUSIONS

The 1948 study reveals facts from which it seems fair to suggest the following conclusions:

1. The need for adequately prepared elementary teachers continues to be desperate. Little progress has been made since the end of the war in the preparation of well-qualified elementary teachers. Despite expanding college enrollments everywhere only a few college students are seriously undertaking the task of preparing themselves for this important work. Colleges in nineteen states which prepared 5,072 four-year trained elementary teachers in 1941 will prepare only 79.4 percent of that number or 4,027 in 1948. Even at the lower levels of preparation the lack of progress is evident. Considering the 120-hour, the 90-hour, the 60-hour, and the 30-hour levels at which standard elementary certificates are granted in some of the states, the colleges in nineteen states which prepared 15,414 elementary teachers in 1941 will prepare only 64.7 percent of that number or 9,977 in 1948.

2. Colleges in nineteen states will prepare 16,700 or 112.2 percent of the 14,891 high school teachers prepared by the same colleges in 1941. Here, how-

ever, a familiar pattern prevails inasmuch as the larger supply of 1948 high school teachers is in the fields of most plentiful supply before the war. In 1948, 1,546 men will be prepared for physical education which is 267.5 percent of the 578 prepared by the same colleges in 1941. In contrast 1,161 home economics teachers will be prepared in 1948 which is only 68 percent of the 1,707 prepared in the same colleges in 1941.

3. Little or no information has been available on which guidance programs in colleges can be effectively developed. Information concerning the actual number of new teachers introduced into each state school system at the beginning of a school year is not generally available. Experimental studies in six states reveal challenging figures. In the six states 5,192 new high school teachers were employed at the beginning of a school year whereas the colleges in those states prepared only 3,639 the preceding year. Even more striking is the fact that 5,414 new elementary teachers were employed in these six states while the colleges were preparing only 2,292 elementary teachers. Further study of the "demand for

teachers" seems to be of first importance in developing a basis for scientific counseling to the end that college students choose fields of preparation in accordance with prospects for success in obtaining teaching positions.

4. Although progress has been made in replacing the teacher of sub-standard qualifications, a recent study (by Benjamin W. Frazier, U. S. Office of Education) shows that more than 98,000 emergency teachers were in service in January, 1948. In the ten North Central Association states requirements for emergency elementary certificates will be higher next year, but in only one reporting state does it seem possible to replace the teacher of sub-standard qualifications. Much more aggressive action is imperative if classrooms are to be staffed with adequately prepared teachers.

5. While it is becoming clearly recognized that elementary teachers are, in general, poorly prepared, little progress is evident in improving the quality of preparation. Many elementary teachers obtain certificates based on courses of study which include no particular emphasis upon elementary teaching. Qualitative as well as quantitative criteria seem to be the next chal-

lenge before leaders in teacher education in America.

6. While more than 1,200 colleges in America participate to some extent in the preparation of teachers, probably less than 300 are professional institutions qualified to offer strong programs of preparation for elementary teaching. Leadership is needed in the establishment of criteria for the accreditation of colleges participating in teacher education. No vocation has risen to true professional status in America without strong institutions of higher learning standing squarely and proudly back of it. These institutions must be motivated by a belief that the importance of their work is second to none in the preservation of an American democratic society. Aggressive action has already been taken by the National Education Association through the creation of the National Commission on Teacher Education and Professional Standards. The National Teacher Supply and Demand Study, under the sponsorship of this commission, promises to reveal in even greater detail the critical nature of the situation in America in regard to the staffing of every schoolroom with an adequately prepared teacher.

THE 1946-47 ENROLLMENTS IN NORTH CENTRAL ASSOCIATION HIGH SCHOOLS IN INDIANA¹

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THE necessity of having access to available data on enrollments in subjects taught in our secondary schools was acutely brought to my attention when I wrote a chapter on foreign languages for Harl R. Douglass' book, *The High School Curriculum*. An Inquiry addressed to the U. S. Office of Education brought the response that it possessed no recent figures on enrollments and that it knew of very few such studies that had been made in recent years.

The North Central Association used to ask for a quinquennial report which included enrollment data from all member schools. The last such report came out in 1934-35, after which time, unfortunately, it was discontinued. I use the word "unfortunately," because I believe that a real educational purpose was served by these quinquennial reports. They made it possible to discover any trends that might reveal what was happening in the various subject fields. School people need to know the "signs of the times" in order to keep abreast of them. It is not important, for example, to know what is happening in the field of mathematics with respect to remedial work, in the field of social studies with respect to courses in global understanding, in the field of foreign languages with respect to any one language, etc.? Such knowledge not only affects the vitalizing of the secondary curriculum, but it also influences the nature of the work in teacher preparation.

In order to learn what has been happening in the state of Indiana, enrollment studies in grades 9-12 in North Central Association schools were made in 1942-43 and 1946-47. The member schools were asked to send in class enrollments on their schedule of recitation sheets at the time their annual report blanks were due in the office of the State Chairman. The enrollment data were tabulated from these class schedule sheets, although the problem of interpreting the data was a most difficult one at times because of the cabalistic codes, signs, and abbreviations peculiar to each school system.

The present study is a detailed tabulation of the 1946-47 enrollment figures. Enrollments in the different subject fields are given in Tables I to XII.

It is somewhat difficult to discover just what is taught as English 12, because such work is elective in most high schools. Advanced grammar, dramatics, and debating may all be taught in the twelfth grade, but there is no assurance that such is the case. It was discovered that American literature was taught on both the eleventh and twelfth grade levels, although a much smaller number take it in the twelfth grade. There is no excuse for the latter placement, since if American history is taught on the eleventh grade level, as it should be, American literature should be placed there for the purposes of correlation.

Advanced grammar is taught only in schools of five hundred and over. World literature is studied in only a few schools, with small enrollments. Reme-

¹ This study also appears in the *Bulletin of the School of Education*, Indiana University, XXIII, No. 6 (November 1947), 5-15.

dial English is finding a place in schools of more than two hundred students. Library science is most popular in the small schools. Debating is not a common course. Speech is increasing in popularity. Radio is found in larger schools only. Bible enrollments have decreased, and so have those in journalism.

TABLE I
ENROLLMENTS IN ENGLISH

| Course | Boys | Girls | Total |
|------------------|--------|--------|--------|
| English 9 | 11,915 | 11,707 | 23,622 |
| English 10 | 12,060 | 13,369 | 25,429 |
| English 11 | 8,691 | 9,078 | 17,769 |
| English 12 | 3,158 | 3,729 | 6,887 |
| Advanced Grammar | 267 | 292 | 559 |
| Journalism | 505 | 868 | 1,373 |
| Speech | 1,909 | 2,132 | 4,041 |
| Dramatics | 229 | 541 | 770 |
| Debating | 69 | 65 | 134 |
| Remedial English | 540 | 407 | 947 |
| Library Science | 174 | 371 | 545 |
| Bible | 413 | 272 | 685 |
| Radio | 52 | 67 | 119 |
| Miscellaneous | 108 | 123 | 231 |
| Total | 40,090 | 43,021 | 83,111 |

TABLE II
ENROLLMENTS IN SOCIAL STUDIES

| Course | Boys | Girls | Total |
|-----------------------------|--------|--------|--------|
| Grade 9 | 3,858 | 3,807 | 7,665 |
| World History | 5,746 | 5,519 | 11,265 |
| American History | 10,719 | 11,464 | 22,183 |
| Government | 6,436 | 7,069 | 13,505 |
| Economics | 701 | 788 | 1,489 |
| Sociology | 795 | 1,052 | 1,847 |
| American Problems | 975 | 1,300 | 2,275 |
| Latin America | 129 | 104 | 233 |
| Pacific Relations | 47 | 45 | 92 |
| American Neighbors | 30 | 29 | 59 |
| International Relations | 44 | 15 | 59 |
| Elementary Geography | 318 | 248 | 566 |
| Advanced Geography | 325 | 260 | 585 |
| Medieval and Modern History | 108 | 100 | 208 |
| Miscellaneous | 217 | 233 | 450 |
| Total | 30,448 | 32,033 | 62,481 |

The amazing revelation in the social studies area is the seemingly small number of students enrolled in any ninth grade course. Only one third of the total ninth grade enrollment is included in the report. Fifty percent of the tenth graders are taking World

TABLE III
ENROLLMENTS IN MATHEMATICS

| Course | Boys | Girls | Total |
|-----------------------|--------|--------|--------|
| Arithmetic 9 | 1,814 | 1,965 | 3,779 |
| General Mathematics | 3,194 | 2,828 | 6,022 |
| Algebra | 8,579 | 7,721 | 16,300 |
| Advanced Algebra | 3,082 | 1,057 | 4,139 |
| Geometry | 6,602 | 4,717 | 11,319 |
| Solid Geometry | 1,008 | 149 | 1,157 |
| Trigonometry | 686 | 134 | 820 |
| Advanced Mathematics | 347 | 283 | 630 |
| College Mathematics | 235 | 33 | 268 |
| Remedial Mathematics | 234 | 220 | 454 |
| Refresher Mathematics | 313 | 436 | 749 |
| Miscellaneous | 81 | 28 | 109 |
| Total | 26,175 | 19,571 | 45,746 |

TABLE IV
ENROLLMENTS IN SCIENCE

| Course | Boys | Girls | Total |
|---------------------------|--------|--------|--------|
| General Science | 33 | 0 | 33 |
| Biology | 8,656 | 10,455 | 19,111 |
| Botany | 462 | 649 | 1,111 |
| Zoology | 207 | 231 | 438 |
| Physical Geography | 297 | 259 | 556 |
| Physics | 4,381 | 1,000 | 5,381 |
| Industrial Physics | 151 | 13 | 164 |
| Household Physics | 0 | 19 | 19 |
| Aeronautics | 185 | 17 | 202 |
| Radio | 58 | 0 | 58 |
| Photography | 36 | 32 | 68 |
| Chemistry | 3,911 | 2,702 | 6,613 |
| Physiology | 340 | 293 | 633 |
| Advanced Physical Science | 748 | 209 | 957 |
| Household Science | 0 | 59 | 59 |
| Psychology | 38 | 58 | 96 |
| Total | 19,503 | 15,996 | 35,499 |

History. Since practically all eleventh graders are enrolled in American History and all seniors are taking courses in government and advanced social studies, it might be well worthwhile to make World History a two year course, beginning in the ninth grade.

The World War is responsible for such courses as Pacific Relations, International Relations, Latin America, and American Neighbors, although the enrollments are very small. Medieval and Modern History is passing out of the curricular picture. In spite of the emphasis on a global world, the enrollments in geography are decreasing.

More students are enrolled in ninth grade mathematics courses than there are students in the ninth grade, if the reported data are accurate. Is it possible that there are as many as 9 percent who are repeaters? If such is the case, schools need to give themselves a thorough examination as to the causes for such failure. In line with this situation, we note pitifully small enrollments in Remedial and Refresher Mathematics courses. If more of the latter type of work were carried on, it might be possible to improve what is otherwise a deplorable state of affairs. A partial explanation may be found in the excessively large numbers enrolled in first-year algebra, 80 percent in Group I schools, 75 percent in Group II schools, 70 percent in Group III schools, and 69 percent in Group IV schools.

A sizable number, about 40 percent of the tenth graders, are enrolled in plane geometry, and close to seven thousand are enrolled in advanced mathematics courses. In the latter group, with the exception of advanced mathematics, the boys far exceed the girls in number.

As is to be expected, General Science is not considered a senior high school-subject in Indiana. Biology is the sci-

ence studied by most high school students, the enrollment being greater than in all the other science courses combined. Botany and Zoology are still taught in a few schools as separate subjects, but both are declining in enrollments, especially Zoology.

Chemistry attracts more students, especially girls, than do the various courses in Physics. Aeronautics and Radio are products of the war influence.

In spite of the talk in educational

TABLE V
ENROLLMENTS IN FOREIGN LANGUAGES

| Course | Boys | Girls | Total |
|----------------|-------|--------|--------|
| <i>Latin</i> | | | |
| I | 3,130 | 4,172 | 7,302 |
| II | 1,914 | 2,702 | 4,616 |
| III | 255 | 380 | 635 |
| IV | 113 | 111 | 224 |
| Total | 5,412 | 7,365 | 12,777 |
| <i>Spanish</i> | | | |
| I | 2,142 | 2,577 | 4,719 |
| II | 1,124 | 1,538 | 2,662 |
| III | 134 | 181 | 315 |
| IV | 25 | 44 | 69 |
| Total | 3,425 | 4,340 | 7,765 |
| <i>French</i> | | | |
| I | 327 | 583 | 910 |
| II | 156 | 305 | 461 |
| III | 55 | 54 | 109 |
| IV | 14 | 0 | 14 |
| Total | 552 | 942 | 1,494 |
| <i>German</i> | | | |
| I | 266 | 122 | 388 |
| II | 111 | 75 | 186 |
| III | 10 | 6 | 16 |
| Total | 387 | 203 | 590 |
| <i>Greek</i> | | | |
| I | 33 | 10 | 43 |
| II | 29 | 27 | 56 |
| Total | 62 | 37 | 99 |
| Total | 9,838 | 12,887 | 22,725 |

circles about offering Physical Science as a course in all senior high schools and to all students whose science equipment would be limited by taking only Physics or Chemistry, the present enrollment in this new area, a mere one thousand, is lamentably small. Nevertheless, it is a hopeful sign to note that the enrollment is actually increasing.

Physical Geography, as a science, and Physiology are definitely decreasing in student enrollments.

Latin continues to hold its own in Indiana, with an enrollment which, although decreasing from year to year, is still greater than the combined enrollments in all the other foreign languages. Spanish is the foreign language in which enrollment is increasing. It has far outstripped French. In fact, the position of the two languages has been absolutely reversed within the past twelve years. German is taught in a few scattered schools. It has never recovered from the blow struck it during the first World War.

One very noticeable factor in the foreign language area is the small number of students who continue into the third and fourth years. In Latin, 94 percent of the enrollments are in the first two years; in Spanish, 95 percent; in French, 92 percent; in German, 97 percent; and in Greek, 100 percent. These percentages signify that foreign languages in the North Central Association high schools in Indiana are definitely two-year subjects and that those who claim any values that accrue from a study of foreign languages must see that these values are taught during the first two years.

Another item of interest is that, with the exception of German and Greek, the ratio of boys to girls is about 3 to 4.

The first noticeable fact about the above figures is that three and a half times as many girls as boys are enrolled. This is especially true in stenography,

in which area there has evidently been some rather poor or unsuccessful counseling, inasmuch as the opportunities for boys to make good in the secretarial field are considered most excellent.

The largest enrollments are in the Beginning Typing and Bookkeeping classes. Many of the students taking Advanced Typing may be the same as those taking Advanced Stenography, but there is still evidence that Ad-

TABLE VI
ENROLLMENTS IN BUSINESS EDUCATION

| Course | Boys | Girls | Total |
|-----------------------|-------|--------|--------|
| Beginning Typing | 3,296 | 10,056 | 13,352 |
| Advanced Typing | 924 | 3,058 | 3,982 |
| Beginning Stenography | 183 | 5,232 | 5,415 |
| Advanced Stenography | 58 | 2,101 | 2,159 |
| Transcription | 3 | 175 | 178 |
| Beginning Bookkeeping | 1,355 | 4,494 | 5,849 |
| Advanced Bookkeeping | 116 | 329 | 445 |
| Commercial Arithmetic | 1,263 | 2,343 | 3,606 |
| Commercial Geography | 163 | 162 | 325 |
| Commercial Law | 228 | 438 | 666 |
| Junior Business | 1,631 | 4,580 | 6,211 |
| Business English | 147 | 778 | 925 |
| Office Practice | 48 | 996 | 1,044 |
| Machine Calculation | 18 | 266 | 284 |
| Salesmanship | 198 | 523 | 721 |
| Retail Problems | 51 | 67 | 118 |
| Merchandising | 35 | 110 | 145 |
| Consumer Education | 59 | 79 | 138 |
| Miscellaneous | 16 | 27 | 43 |
| Total | 9,792 | 35,814 | 45,606 |

vanced Stenography is not achieving the attention it merits, unless too many are admitted to the beginning class who should not have been allowed to enroll in the first place. There is more reason for taking this advanced course than there is for taking Advanced Typing, because one year of stenography seldom produces enough proficiency on the part of the learner. Furthermore, the advanced course provides for transcription.

It is gratifying to note the six thousand enrollments in Junior Business courses. Consumer Education is attracting a little attention, but not much. Courses in Distributive Education are offered in the large school, but the enrollments are small.

TABLE VII.
ENROLLMENTS IN ARTS AND CRAFTS

| Course | Boys | Girls | Total |
|---------------------------|-------|-------|-------|
| Beginning Art | 1,912 | 2,761 | 4,673 |
| Beginning Arts and Crafts | 547 | 682 | 1,229 |
| Beginning Commercial Art | 156 | 223 | 379 |
| Advanced Arts | 610 | 1,081 | 1,691 |
| Advanced Arts and Crafts | 105 | 258 | 363 |
| Advanced Commercial Art | 41 | 87 | 128 |
| Art Appreciation | 104 | 138 | 242 |
| Miscellaneous | 18 | 49 | 67 |
| Total | 3,493 | 5,279 | 8,772 |

Over six thousand students are enrolled in Beginning Art classes of one sort or another, with 60 percent of them being girls. It is gratifying to note that "Arts and Crafts," a designation that shows a most desirable trend, is being listed as a special type of art class. Only about a third of the beginners continue into advanced classes. These, undoubtedly, are students who have discovered a talent or special interest in some art activity.

Music continues to show a steady interest on the part of boys and girls, with 50 per cent of the total enrollment in some form of vocal activity and 40 percent in instrumental courses. There are, of course, duplications of enrollment in band and orchestra, and in instrumental and vocal classes. Theory and appreciation classes continue to be small. In vocal groups girls outnumber the boys more than 2 to 1, but in in-

strumental groups the two sexes are evenly distributed.

"Physical Fitness" is probably used to describe the work taken by juniors and seniors, because many schools have gone back to the requirement of only two years in Physical Education. It seems that 65 percent of our boys and girls are engaged in some sort of physical activity. Some fourteen thousand are enrolled in health and/or safety classes, with over three times as many students in separate courses as in the combined course. The question may

TABLE VIII
ENROLLMENTS IN MUSIC

| Course | Boys | Girls | Total |
|----------------------------|--------|--------|--------|
| Appreciation | 822 | 1,022 | 1,844 |
| Advanced Appreciation | 13 | 29 | 42 |
| Harmony | 105 | 130 | 235 |
| History of Music | 4 | 4 | 8 |
| Vocal Music | | | |
| Beginning Chorus | 1,804 | 4,916 | 6,720 |
| Advanced Chorus | 277 | 694 | 971 |
| Choir | 465 | 1,079 | 1,544 |
| Glee Club | 953 | 2,136 | 3,089 |
| A Cappella Choir | 59 | 146 | 205 |
| Miscellaneous Vocal | 1,262 | 1,326 | 2,588 |
| Total | 4,820 | 10,297 | 15,117 |
| Instrumental Music | | | |
| Beginning Band | 2,773 | 2,285 | 5,058 |
| Advanced Band | 1,384 | 1,330 | 2,714 |
| Concert Band | 340 | 251 | 591 |
| Dance Band | 26 | 2 | 28 |
| Beginning Orchestra | 654 | 1,032 | 1,686 |
| Advanced Orchestra | 229 | 382 | 611 |
| Miscellaneous Instrumental | 680 | 813 | 1,493 |
| Total | 6,086 | 6,095 | 12,181 |
| Miscellaneous | 65 | 243 | 308 |
| Total | 11,915 | 17,820 | 29,735 |

well be raised as to the advisability of the separate courses on the grounds that the content will have to be spread pretty thin in order to take up the time.

It is difficult to analyze the above courses for comparative purposes, because the courses listed just as Home Economics may be any of the other

courses. And, then, when the course is mentioned, it is difficult to know on which grade level to place it. Consequently, accurate analyses cannot be given. It is obvious, however, that

TABLE IX

ENROLLMENTS IN HEALTH AND
PHYSICAL EDUCATION

| Course | Boys | Girls | Total |
|--------------------------|--------|--------|--------|
| Physical Education | 27,381 | 28,155 | 55,536 |
| Physical Fitness | 2,378 | 1,718 | 4,096 |
| Health and Safety | | | |
| Senior Health and Safety | 1,713 | 1,636 | 3,349 |
| Health | 5,146 | 3,298 | 8,444 |
| Safety | 1,353 | 1,077 | 2,430 |
| Total | 8,212 | 6,011 | 14,223 |
| Hygiene | 0 | 57 | 57 |
| First Aid | 93 | 93 | 186 |
| R. O. T. C. | 1,176 | 0 | 1,176 |
| Miscellaneous | 282 | 311 | 593 |
| Total | 39,522 | 36,345 | 75,867 |

TABLE X

ENROLLMENTS IN HOUSEHOLD ARTS

| Course | Boys | Girls | Total |
|----------------------|------|--------|--------|
| Home Economics 9-10 | 19 | 3,964 | 3,983 |
| Home Economics 11-12 | 12 | 1,497 | 1,509 |
| Foods | 113 | 3,567 | 3,680 |
| Advanced Foods | 62 | 924 | 986 |
| Clothing | 2 | 3,423 | 3,425 |
| Advanced Clothing | 0 | 2,134 | 2,134 |
| Home Management | 0 | 579 | 579 |
| Home Making | 0 | 479 | 479 |
| Family Relations | 113 | 268 | 381 |
| Social Practice | 0 | 329 | 329 |
| Child Care | 0 | 85 | 85 |
| Home Nursing | 0 | 895 | 895 |
| Related Arts | 25 | 118 | 143 |
| Miscellaneous | 108 | 315 | 423 |
| Total | 454 | 18,577 | 19,031 |

Foods and Clothing are still the main standbys in this area. It seems that the courses are not sufficiently interesting or worth-while, because less than half of the girls continue into the advanced classes, especially in the case of Foods.

Although the total number of boys enrolled is small, it is significant to know that over a hundred are enrolled in Foods and in Family Relations. We need much more attention paid to the second of these courses.

Drafting of one sort or another accounts for 25 percent of the enrollments in the industrial arts area and

TABLE XI

ENROLLMENTS IN INDUSTRIAL ARTS

| Course | Boys | Girls | Total |
|---------------------------------|--------|-------|--------|
| | 4,875 | 54 | 4,929 |
| Shop 10 | 1,317 | 31 | 3,148 |
| Shop 11 | 782 | 15 | 797 |
| Shop 12 | 479 | 10 | 489 |
| Mechanical Drawing | 5,383 | 69 | 5,452 |
| Advanced Mechanical Drawing | 1,152 | 6 | 1,158 |
| Architectural Drawing | 150 | 3 | 153 |
| Drafting | 1,095 | 4 | 1,099 |
| Woodwork | 2,455 | 12 | 2,467 |
| Advanced Woodwork | 961 | 0 | 961 |
| Machine Shop | 2,482 | 6 | 2,488 |
| Advanced Machine Shop | 1,027 | 0 | 1,027 |
| Metal Work | 1,567 | 18 | 1,585 |
| Printing | 1,388 | 99 | 1,487 |
| Advanced Printing | 182 | 7 | 189 |
| Electrical Work | 837 | 13 | 850 |
| Auto Mechanics | 1,332 | 0 | 1,332 |
| Blueprint Reading | 111 | 1 | 112 |
| Pattern Making | 222 | 0 | 222 |
| Foundry | 452 | 7 | 459 |
| Shop Mathematics | 1,198 | 0 | 1,198 |
| Related Science and Mathematics | 211 | 0 | 211 |
| Vocations | 530 | 14 | 544 |
| Miscellaneous | 413 | 26 | 436 |
| Total | 30,601 | 395 | 30,996 |

leads all the other types of courses. General Shop means, in most cases, a non-vocational, exploratory experience. More boys should be enrolled in it as part of the work experience of which we hear so much these days.

Just as in the case of household arts, it is difficult to analyze Woodwork, Metal Work, and Machine Shop from the enrollments reported for grades 10,

11, and 12, and therefore an accurate report cannot be presented here. It is a good guess, however, to say that Woodwork has the largest enrollment next to Drawing and is followed by Machine Shop.

TABLE XII
ENROLLMENTS IN AGRICULTURE

| Course | Boys | Girls | Total |
|----------------------|-------|-------|-------|
| Agriculture 9-10 | 1,539 | 2 | 1,541 |
| Agriculture 11-12 | 989 | 0 | 989 |
| Agricultural Biology | 44 | 1 | 45 |
| Farm Shop | 116 | 0 | 116 |
| Farm Management | 55 | 0 | 55 |
| Miscellaneous | 125 | 0 | 125 |
| Total | 2,868 | 3 | 2,871 |

The most interesting feature about this area is that, as in household arts, the opposite sex from the one normally taking the course is in evidence. In only six of the courses listed are there no

girls. The number of girls enrolled range from 1 to 99, with the larger enrollments in Drawing, Printing, and General Shop. The influence of the war, when so many girls worked in factories, is probably responsible for this.

Agriculture plays an insignificant role in the curricula of North Central Association secondary schools in Indiana. Even in the small high schools, most of which are located in agricultural areas, only approximately 15 percent of the students are enrolled. One of the most important courses in agriculture is Farm Shop, a course which ought to serve the functions of a general shop in rural areas, because there is no other way for boys, as well as girls, to learn unspecialized practical activities. And yet the number of boys listed in this course is almost negligible, about 4 percent of the total enrollment. A suggestion has been made that Farm Shop work be included as a part

TABLE XIII
ENROLLMENT DATA REPORTED FOR GRADES 9-12 FOR 1946-47 AS COMPARED WITH THE DATA FOR 1934-35 AND 1942-43

| Subject | 1934-35 (120 schools) | | 1942-43 (154 schools) | | 1946-47 (162 schools) | |
|-------------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|
| | Number of Pupils | Percent of Pupils | Number of Pupils | Percent of Pupils | Number of Pupils | Percent of Pupils |
| English | 79,545 | 95 | 86,642 | 91 | 83,111 | 90 |
| Social Studies | 62,457 | 74 | 66,681 | 70 | 62,481 | 67 |
| Foreign Languages | 29,613 | 35 | 22,722 | 24 | 22,626 | 24 |
| Latin | 17,497 | 21 | 13,537 | 14 | 12,777 | 14 |
| Spanish | 3,210 | 4 | 6,575 | 7 | 7,765 | 8 |
| French | 6,823 | 8 | 1,950 | 2 | 1,494 | 2 |
| German | 2,083 | 3 | 660 | 1 | 590 | 1 |
| Mathematics | 42,140 | 50 | 44,772 | 47 | 45,746 | 49 |
| Science | 33,720 | 40 | 37,632 | 39 | 35,499 | 38 |
| Health and Physical Education | 45,278 | 45 | 73,454 | 77 | 75,867 | 81 |
| Business | 48,315 | 52 | 53,555 | 56 | 45,606 | 49 |
| Arts and Crafts | 7,037 | 8 | 8,540 | 9 | 8,772 | 9 |
| Music | 26,115 | 31 | 26,298 | 27 | 29,735 | 31 |
| Household Arts | 16,057 | 19 | 20,144 | 21 | 19,031 | 20 |
| Industrial Arts | 23,244 | 27 | 32,121 | 33 | 30,996 | 32 |
| Agriculture | 1,611 | 2 | 3,020 | 3 | 2,871 | 3 |
| Total | 84,320 | 100 | 95,740 | 100 | 93,259 | 100 |

of the regular courses in agriculture. The objection to this method is that the other boys in school are thereby deprived of the opportunity to take any such work.

The preceding analyses for the separate subject areas have revealed the relationship within each area. Table XIII gives the total enrollments in each area for three periods, 1934-35, 1942-43, and 1946-47. In order that comparisons might be made on a comparable basis and that major trends might be discovered, all the area enrollments have been reduced to percentages of the school population for each of the three years.

We find that there has been a 5 percent decrease in enrollments in English over the 12-year period. There is a 7 percent drop in social studies, and an 11 percent drop in foreign languages. There are slight decreases in the fields of science and business. Enrollments in mathematics, arts and crafts, music, household arts, and agriculture have remained about the same. In health

and physical education there has been an increase of 27 percent and in industrial arts, one of 5 percent.

In the area of foreign languages, Latin enrollments have decreased 11 percent, with an actual numerical decrease of 7,000 enrollments. Spanish and French have exactly reversed their positions.

With all the furor over mathematics during the war, it is surprising to note a 1 percent decrease in the 12-year period, although there is a gain of 2 percent within the last four years. When work in remedial and consumer mathematics is established on a firmer level, it may be that the outlook here will be a little brighter.

Those who are interested in enrollment analysis will find further opportunity to make interpretations of their own concerning data given in any or all of the tables presented in this study. Only the highlights, so to speak, have been discussed in this study. It is our hope to make a similar analysis for the year 1947-48.

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 - C. *Home Economics in Liberal Arts Colleges*, by CLARA M. BROWN. Published 1943, under joint sponsorship with the American Home Economics Association. \$1.00

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- D. Reprints from the NORTH CENTRAL ASSOCIATION QUARTERLY and other pamphlets available in limited numbers at the office of the Secretary of the Commission on Colleges and Universities without cost
1. "Statement of Policy Relative to the Accrediting of Higher Institutions, Operation of the Accrediting Procedure," July 1, 1941
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 3. "Periodicals for the College Library," prepared for the Committee on Revision of Standards by DOUGLAS WAPLES
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